

MATERIAL SAFETY DATA SHEET

NH

Trade Name: Mild Hand Soap #8700 & 8701

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Regional Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Soap

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>	<u>Percentage</u>
NONE				

* Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	N/A
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>		<u>Solubility in Water:</u>	10%
<u>Appearance and Color:</u>	Yellow bar with mild scent		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, foam or dry chemical
Special Fire Fighting Procedures:
Unusual Fire and Explosion Hazards: Irritating fumes

Section V - Reactivity Data:

Stability: STABLE
Incompatibility (Conditions to avoid): None known
Hazardous Polymerization: NONE
Hazardous Decomposition Products: None known

NFPA 704

Health	—	0	HAZARDS 4 – Extreme 3 – Severe 2 – Moderate 1 – Slight 0 – None
Fire	—	0	
Reactivity	-	0	

Section VI - Health Hazard Data:

Routes of Entry: Ingestion, absorption**Health Hazards:****Target Organs:** Eyes, Skin**Carcinogenicity:** NTP: No IARC: No OSHA: No**Signs and Symptoms of Exposure:** May cause mild eye irritation. Skin irritation if exposed for prolong periods. Possible mild gastrointestinal irritation with nausea, diarrhea and vomiting.**Emergency and First Aid Procedures:**

- Eye:** Immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.
- Swallow:** Drink water or milk. If irritation persists get medical attention.
- Skin:** If this product contacts the skin, promptly wash the contaminated skin with water. If this product penetrates the clothing promptly remove the clothing and wash the skin with water. If irritation persists after washing, get medical attention.
- Breathing:** If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect and dispose of unusable material properly.**Waste Disposal Method:** This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal. May be disposed in a sanitary landfill.**Precautions to be Taken in Handling and Storing:** Contact with water may breakdown the bar.**Other Precautions:**

Section VIII - Control Measures:

Respiratory Protection: Not normally required**Ventilation:** Not normally required**Protective Gloves:** Not normally required**Eye Protection:** Not normally required**Other Protective Clothing or Equipment:** Not normally required**Work/Hygienic Practices:** Avoid prolonged skin contact.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

ConstituentCAS #Concentration

NONE

This notification of reporting requirements, cannot be removed from this MSDS and the copying and redistribution of this document must include this notice.

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originated with Michigan State Industries, Inc. or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

MATERIAL SAFETY DATA SHEET

NH

Trade Name: Deodorant Bar Soap #8705 & 8706

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Soap

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
NONE			

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.04
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	10%
<u>Appearance and Color:</u>	Green bar with lemon/lime scent.		

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, foam, dry chemical, carbon dioxide
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: May cause irritating vapors

NFPA 704

Health –	0	HAZARDS 4 – Extreme 3 – Severe 2 – Moderate 1 – Slight 0 – None
Fire –	0	
Reactivity -	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility (Conditions to avoid): None known

Hazardous Polymerization: WILL NOT OCCUR

Hazardous Decomposition Products: None known

Section VI - Health Hazard Data:

Routes of Entry: Skin contact, inhalation, ingestion

Health Hazards:

Target Organs: Eyes and Skin

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: May cause mild eye irritation. Skin irritation if exposed for prolonged periods. Possible mild gastrointestinal irritation with nausea, diarrhea and vomiting.

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: Give water or milk. If irritation persists get medical attention.

Skin: Wash the skin with water. If irritation persists, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect and dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal. May be disposed in a sanitary landfill.

Precautions to be Taken in Handling and Storing: Avoid contact with water, as bar may breakdown.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not normally required

Ventilation: Not normally required

Protective Gloves: Not normally required

Eye Protection: Not normally required

Other Protective Clothing or Equipment: Not normally required

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Mechanics Soap #8710 & #8711

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Soap

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>	<u>Percentage</u>
NONE				

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.04
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	10%
<u>Appearance and Color:</u>		Gray bar	

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Water, foam or dry chemical

Special Fire Fighting Procedures: Fire fighter should wear full-face, self contained breathing apparatus if this product is involved in a fire.

Unusual Fire and Explosion Hazards: Exposure to heat may produce irritating vapors.

NFPA 704

Health –	0	HAZARDS 4 – Extreme 3 – Severe 2 – Moderate 1 – Slight 0 – None
Fire –	0	
Reactivity -	0	

Section V - Reactivity Data:**Stability:** STABLE**Incompatibility (Conditions to avoid):** None known**Hazardous Polymerization:** NONE**Hazardous Decomposition Products:** None known

Section VI - Health Hazard Data:**Routes of Entry:** Ingestion, absorption**Health Hazards:** *Acute:* Irritation of eyes and skin*Target Organs:* Eyes, Skin*Chronic:* None Known**Carcinogenicity:** *NTP:* No *IARC:* No *OSHA:* No**Signs and Symptoms of Exposure:** May cause mild eye irritation. Skin irritation if exposed for prolonged periods. Possible mild gastrointestinal irritation with nausea, diarrhea and vomiting.**Emergency and First Aid Procedures:****Eye:** Immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.**Swallow:** Drink water or milk. If irritation persists get medical attention.**Skin:** If this product contacts the skin, promptly wash the contaminated skin with water. If this product penetrates the clothing promptly remove the clothing and wash the skin with water. If irritation persists after washing, get medical attention.**Breathing:** If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use**Steps to be Taken in Case of Material Release or Spill:** Collect and dispose of unusable material properly.**Waste Disposal Method:** This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal. May be disposed in a sanitary landfill.**Precautions to be Taken in Handling and Storing:** Contact with water may breakdown the bar.**Other Precautions:** None

Section VIII - Control Measures:**Respiratory Protection:** Not normally required**Ventilation:** Not normally required

Protective Gloves: Not normally required

Eye Protection: Not normally required

Other Protective Clothing or Equipment: Not normally required

Work/Hygienic Practices: Avoid prolonged skin contact.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Tableware Destainer, #8720

Date Prepared: February, 2000

Revised: Sept. 16, 2000

Section I - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Oxygen Bleach Presoak

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*	Percentage
Sodium Metasilicate	6834-92-0	Not Estab.	Not Estab	10 - 30%
Sodium Perborate	7632-04-4	15mg/m3	10mb/m3	20 - 40%
Sodium Carbonate	497-19-8	Not Estab.	Not Estab	10 - 30%

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). *Other Limits* are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: N/A
Vapor Pressure: N/A
Evaporation Rate: (Ethyl Ether =1): N/A
Solubility in Water: Moderate
Appearance and Color: White to tan, powder

Specific Gravity: N/A

Vapor Density: N/A

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A
Extinguishing Media: Water spray
Special Fire Fighting Procedures: This product does NOT support combustion.
Unusual Fire and Explosion Hazards:

Flammable Limits: LEL: UEL:

Section V - Reactivity Data:

Stability: Stable
Conditions to avoid: Do not mix with other cleaning products. Mix only with water.
Incompatibility: organic materials, reducing agents, acids, heavy metals
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products:

NFPA 704

Health –	2	HAZARDS 4 – Extreme 3 – Severe 2 – Moderate 1 – Slight 0 – None
Fire –	0	
Reactivity -	0	

Section VI - Health Hazard Data:

Routes of Entry: Inhalation, ingestion, contact with skin or eyes

Health Hazards:

Acute: Irritation to skin and respiratory system. Causes eye burns. Permanent eye damage could result without immediate first aid treatment

Chronic: None known.

Carcinogenicity: NTP: No

IARC: No

OSHA: No

Emergency and First Aid Procedures:

Eye: Wash eyes for 15 minutes with tepid water, lifting lower and upper eyelids in the process. If irritation persists, consult a physician.

Swallow: Do not induce vomiting. Drink large quantities of milk or water.

Skin: Remove and launder contaminated clothing. Flood skin with plenty of water for at least 15 minutes.

Breathing: Move victim to fresh air.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Sweep and contain all spilt product without raising dust. Flush contaminated area with water, if possible. Follow normal cleaning procedures.

Waste Disposal Method: Dispose of in compliance with all local, state and federal laws.

Precautions to be Taken in Handling and Storing: Handle carefully, avoid damaging containers.

Keep cover closed when not in use. Store below 100°F.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Dust mask when handling large, open quantities.

Ventilation: Maintain adequate ventilation.

Protective Gloves: Rubber (latex)

Eye Protection: Goggles or safety glasses w/side shields

Other Protective Clothing or Equipment: Not ordinarily required.

Work/Hygienic Practices: Follow all prudent workplace safety procedures.

Section IX-Additional Information:

DOT Shipping Name: Not regulated by DOT.

Hazard Class:

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

Constituent

CAS #

Concentration

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Sani Hands, #8721

Date Prepared: January, 2003

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Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Surfactant Blend

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*	Percentage
Ethanol	64-17-5	1,000 PPM	1,000 PPM	<2%
Glycol Ethers	N/A	N/A	<3%	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: 212° F
Vapor Pressure: N/A
Evaporation Rate: (Ethyl Ether =1): N/A
Solubility in Water: Complete
Appearance and Color: Golden, clear liquid

Specific Gravity: 1.0
Vapor Density: >1
pH: 7.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >210° F.
N/A
Extinguishing Media: carbon dioxide or dry chemical
Special Fire Fighting Procedures: avoid direct water spray
Unusual Fire and Explosion Hazards: None known

Flammable Limits: LEL: N/A UEL:

Section V - Reactivity Data:

Stability: stable
Incompatibility: strong oxidizing agents
Hazardous Polymerization: will not occur
Hazardous Decomposition Products:

Conditions to avoid:

NFPA 704

Health – 1 Fire – 1 Reactivity - 0	HAZARDS 4 – Extreme 3 – Severe 2 – Moderate 1 – Slight 0 – None
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Section VI - Health Hazard Data:

Routes of Entry:

Health Hazards:

Acute: Yes, eyes, swallowing

Chronic: No

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

First Aid Measures:

Eye: If splashed into the eyes, flush eyes with clear water for 15 minutes or until irritation subsides. Hold eyelids apart to ensure flushing of the entire eye surface. If irritation persists, consult physician.

Swallow: If ingested, do NOT induce vomiting. If substantial vomiting occurs spontaneously, keep head below hips to prevent aspiration into lungs. Do NOT feed an unconscious or drowsy person by mouth.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: contain spill, add inert absorbent to spill area, collect in containers for disposal.

Waste Disposal Method: This product does not meet the criteria for hazardous waste. Dispose of material in accordance with all federal, state, and local regulations in an approved waste disposal facility.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: none needed

Ventilation: normal ventilation ordinarily sufficient

Protective Gloves: none needed

Eye Protection: wear goggles or safety glasses with side shields when handling large quantities of this product

Section IX-Additional Information:

DOT Shipping Name: *Not Hazardous*

Hazard Class: *None*

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Creme Cleanser - #8724

Revised: September 15, 2000

Page 1 of 3

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Liquid scouring cleanser

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Silica (no respirable dust)	14808-60-7	0.1 mg/M3	0.1 mg/M3
Dodecylbenzysulfonic Acid	27176-87-0	N/A	N/A
Nonoxynol	9016-45-9	N/A	N/A

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.25
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Butyl Acetate =1):</u>	1	pH:	9.0
<u>Solubility in Water:</u>	Insoluble		
<u>Appearance and Color:</u>	off white creme, lemon odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: None **Flammable Limits:** LEL: N/A UEL: N/A

Extinguishing Media: Water, carbon dioxide, foam or media suitable for surrounding fire.

Special Fire Fighting Procedures: Standard fire fighting procedure should be followed including full protective gear.

Unusual Fire and Explosion Hazards: None known.

NFPA 704

Health – 1 Fire – 0 Reactivity - 0	HAZARDS 4 – Extreme 3 – Severe 2 – Moderate 1 – Slight 0 – None
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Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): None known.

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: Thermal decomposition may produce toxic vapor or

gases.

Section VI - Health Hazard Data:

Routes of Entry: Skin, eyes, ingestion

Health Hazards: *Acute and Chronic:* Acute: Harmful if swallowed. Eye and skin irritant. May cause permanent damage. Chronic: None Known.

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Irritation or burning sensation

Emergency and First Aid Procedures:

<u>Eye:</u>	Immediately flush eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention.
<u>Swallow:</u>	Rinse mouth with water then drink 1-2 glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.
<u>Skin:</u>	Flush with water for 15 minutes. Remove and launder contaminated clothing.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Wear appropriate protective equipment. If possible, contain spill and collect in an approved container. Rinse affected area thoroughly with water. Keep product out of sewers or waterways. Hold for disposal.

Waste Disposal Method: In accordance with local, state and federal regulations.

Precautions to Take in Handling and Storing: Avoid contact with skin or eyes. Avoid breathing vapor, spray or mist. Store in original container in cool, dry place with adequate ventilation. Keep out of the reach of children. Keep container tightly closed when not in use.

Other precautions: Use according to label instructions.

Section VIII - Control Measures:

Respiratory Protection: Not required during normal use of product.

Ventilation: Use adequate ventilation.

Protective Gloves: Water impervious (latex, neoprene) recommended.

Eye Protection: Normally not needed.

Other Protective Clothing or Equipment: Not required.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

Constituent**NONE****CAS #****Concentration**

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Diamond Stripper -#8749

Created: September 21, 2000

Revised: August 15, 2001

Section I: - Source Information

Address: Michigan State Industries
Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent/Stripper

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
2-Amino Ethanol	141-43-5	3 ppm	3 ppm
2-Butoxy Ethanol (Glycol Ether)	111-76-2	50 ppm 5 ppm (skin)	25 ppm

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	0.97
<u>Vapor Pressure:</u>	Same as Water	<u>Vapor Density:</u>	Same
<u>Evaporation Rate: (Butyl Acetate =1):</u>	Same as Water		as Water
<u>Solubility in Water:</u>	Complete	<u>pH:</u>	12.5
<u>Appearance and Color:</u>	Clear, thin liquid with sassafras odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: Greater than 200° Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Material doesn't burn. Fight surrounding fire with appropriate media.
Special Fire Fighting Procedures: Standard fire fighting procedure should be followed including full protective gear.
Unusual Fire and Explosion Hazards: This product may liberate toxic fumes when heated. Wear self contained breathing apparatus.

NFPA 704

Health – 2	HAZARDS
Fire – 0	4 – Extreme
Reactivity - 0	3 – Severe
	2 – Moderate
	1 – Slight
	0 – None

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Acids and oxidizers

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: Carbon oxides and amines

Section VI - Health Hazard Data:

Routes of Entry: Skin, inhalation, ingestion

Health Hazards:

Acute: Harmful if swallowed. Eye and skin irritant. May cause severe mucosal damage and gastric distress. May cause systemic intoxication.

Chronic: None Known.

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Irritation or burning sensation

Medical Conditions Aggravated by Exposure: May aggravate existing dermatitis and irritate sensitive skin. May irritate any pre-existing pulmonary conditions.

Emergency and First Aid Procedures:

Eye: Immediately flush eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention.

Swallow: Do not induce vomiting. Give milk, egg white, gelatin or water. Get immediate medical attention.

Skin: Thoroughly wash with water and apply emollient creme.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Recontainerize by mopping, wet vacuum or using a suitable absorbent. Rinse remaining material to drains. Be cautious of slippery floors.

Waste Disposal Method: Follow local, state and federal regulations.

Precautions to Take in Handling and Storing: Store between 40° and 120° F.

Other precautions: Thoroughly wash all contaminated clothing before reuse. Keep out of reach of children. For sale to, use and storage by, service personnel only.

NFPA 704

Health – 2	HAZARDS
Fire – 0	4 – Extreme
Reactivity - 0	3 – Severe
	2 – Moderate
	1 – Slight
	0 – None

Section VIII - Control Measures:

Respiratory Protection: Not required during normal use of product.

Ventilation: Use adequate ventilation.

Protective Gloves: Rubber or latex.

Eye Protection: Goggles or safety glasses with shields.

Other Protective Clothing or Equipment: Rubber boots should be worn if working in standing solutions.

Section IX-Additional Information:

DOT Shipping Name: Compounds, cleaning liquid, 8, NA1760, PGII

Hazard Class: Corrosive

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Butyl Cellosolve(Glycol Ether)	111-76-2	35%

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NFPA 704

Health – 2
Fire – 0
Reactivity - 0

HAZARDS
4 – Extreme
3 – Severe
2 – Moderate
1 – Slight
0 – None

MATERIAL SAFETY DATA SHEET

NH

Trade Name: Multi-Purpose Cleaner #8750

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Diethanolamine	111-42-2	3 ppm	3 ppm
Glycerine	56-81-5	10 ppm	10 ppm
Methanol	67-56-1	200 ppm	200 ppm
Sodium dodecylbenzene sulfonate		25155-30-0	None established

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.02
<u>Vapor Pressure:</u>	17.5 @ 20 °C	<u>Vapor Density:</u>	>1.0
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>pH:</u>	10.0
<u>Solubility in Water:</u>	100%		
<u>Appearance and Color:</u>	Pink liquid with fresh bouquet odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, foam, carbon dioxide, or dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: May emit toxic fumes when heated to decomposition.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: Product is stable under normal conditions.
Incompatibility (Conditions to avoid): Strong oxidizers

Hazardous Polymerization: NONE

Hazardous Decomposition Products: None known.

Section VI - Health Hazard Data:

Routes of Entry: Ingestion, Contact

Health Hazards:

Target Organs: Eyes, skin

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: May cause irritation of the mucous membranes. Nausea and vomiting if swallowed, Irritation if in the eyes. Defatting of skin.

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: Give water. Get medical attention.

Skin: Flush with water. Apply moisturizer if skin is dry. Get medical attention if any discomfort continues.

Breathing: N/A

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Small spills may be diluted and flushed to a sanitary sewer drain with large amounts of water. Large spills should be contained, absorbed, collected and disposed.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep container closed.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Not required under normal conditions

Protective Gloves: Wear protective gloves.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment:

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting

requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Diethanolamine	111-42-2	<2
Methanol	67-56-1	<1

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Glass Cleaner #8751

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Ammonia Cleaner

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Ammonia Hydroxide	1336-21-6	25 ppm	
Isopropyl Alcohol	67-63-0	400 ppm	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	201° F	<u>Specific Gravity:</u>	0.98
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	
<u>Evaporation Rate: (Butyl Acetate =1):</u>	>1	<u>Solubility in Water:</u>	<1
<u>Appearance and Color:</u>		<u>pH:</u>	100%
10.0			
Pale blue liquid with slight ammonia odor			

Section IV- Fire and Explosion Hazard Data:

Flash Point: 108° F Flammable Limits: LEL: 2% UEL: 12.7%

Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide

Special Fire Fighting Procedures: Cool fire exposed containers with water spray. Fire fighters should wear full-face self contained breathing apparatus.

Unusual Fire and Explosion Hazards: Exposure to fire or high temperatures may cause the release of toxic vapors including carbon dioxide, nitrous oxides and ammonia.

NFPA 704

Health -	3	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	2	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Strong mineral acids, copper, metallic mercury, strong oxidizers

Hazardous Polymerization: NONE

Hazardous Decomposition Products: Carbon dioxide, ammonia.

Section VI - Health Hazard Data:

Routes of Entry: Contact, inhalation, ingestion

Health Hazards: ***Acute:*** If swallowed may cause severe damage to mucous membranes and deep tissues and can result in death or penetration to vital areas. Can cause burns and deep ulceration upon skin contact. Can cause severe damage to the mucus membranes of the respiratory system. Can cause severe damage and blindness very quickly when in contact with eyes.

Chronic: None Known

Target Organs: Eyes, skin and mucous membranes

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Irritation, burns

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain spilled material, absorb and

dispose of properly. Large spills may be contained and collected using vacuum equipment, dispose of unusable material.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does exhibit the Characteristic of Ignitability in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Avoid high temperatures

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Prevent excessive exposure with gloves.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Not required under normal conditions.

Work/Hygienic Practices: Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name:	Compounds, Cleaning Liquid, Class 3, NA1993, PGIII
Hazard Class:	Flammable Liquid

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Spray and Wipe #8752

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Alkali Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Diethanolamine	111-42-2	3 ppm	3 ppm
Glycerine	56-81-5	10 ppm	10 ppm
Methanol	67-56-1	200 ppm	200 ppm
Sodium dodecylbenzene sulfonate		25155-30-0	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212° F	<u>Specific Gravity:</u>	1.01
<u>Vapor Pressure:</u>	17.5 @ 20° C	<u>Vapor Density:</u>	>1.0
<u>Evaporation Rate: (Ethyl Ether =1):</u>		<u>Solubility in Water:</u>	100 %
<u>Appearance and Color:</u>	Pink liquid with fresh bouquet odor	<u>pH:</u>	9.0

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, foam, dry chemical, carbon dioxide
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: None known

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility (Conditions to avoid): None known
Hazardous Polymerization: NONE

Hazardous Decomposition Products: None known

Section VI - Health Hazard Data:

Routes of Entry: Ingestion, skin contact

Health Hazards: *Acute:* Irritation of the mucous membranes, nausea, vomiting, defatting of skin.

Chronic: None Known

Target Organs: Skin, eyes, mucous membranes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation of the mucous membranes, skin or eyes

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water. occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: Get medical attention.

Skin: If this product contacts the skin, flush the contaminated skin with water promptly. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water promptly, If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions.

Ventilation: None required under normal conditions.

Protective Gloves: Wear appropriate gloves to prevent skin contact.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Diethanolamine	111-42-2	<2 %
Methanol	67-56-1	<1 %

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Cleaner/Degreaser #8754

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Alkali Degreaser

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Butyl Cellosolve	111-76-2	25 ppm(skin)	
Sodium Hydroxide	1310-73-2	2 ppm	
Sodium Metasilicate	6834-92-0	NONE	
Trisodium Phosphate	7601-45-9	NONE	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212° F	<u>Specific Gravity:</u>	0.932
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate (Butyl Acetate =1):</u>	<1.0	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Blue/green liquid with slight odor	<u>pH:</u>	14.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200° F **Flammable Limits:** LEL: N/A UEL: N/A
Extinguishing Media: Water
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Decomposition at high temperatures may emit toxic vapors.

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): May react with acids, fluoride
Hazardous Polymerization: None known
Hazardous Decomposition Products: Toxic vapors when heated to decomposition including

carbon monoxide, carbon dioxide, or oxides of sulfur and sodium.

Section VI - Health Hazard Data:

Routes of Entry: Inhalation, contact, ingestion

Health Hazards: *Acute:* Irritation of mucous membranes, eyes and skin

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Medical Conditions Generally Aggravated by Exposure: May cause severe eye, skin and mucous membrane irritation. Gastrointestinal track upset if ingested

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately. DO NOT induce vomiting.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Do not expose to heat

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Wear appropriate gloves to prevent skin contact.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Protective Clothing or Equipment: Not required under normal conditions.

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Butyl Cellosolve(Glycol Ether)	111-76-2	1.4%

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Pine Odor Disinfectant #8755

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Ethyl Alcohol	64-17-5	1000 ppm	
Sodium Tripolyphosphate	13573-18-7	Not established	
Sodium Carbonate	497-19-8	Not established	
Lauryl dimethyl amine oxide	1643-20-5	Not established	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.03
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Butyl Acetate =1):</u>	<1.0	<u>pH:</u>	12.0
<u>Solubility in Water:</u>	100 %		
<u>Appearance and Color:</u>	Yellow liquid with pine odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Water spray, dry chemical, foam

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: High heat can produce toxic vapors including carbon monoxide, carbon dioxide, oxides of nitrogen.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Strong oxidizers, ammonia, surfactants. Avoid contact with aluminum, brass, copper, black iron or steel.

Hazardous Polymerization: None known

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion, inhalation

Health Hazards:

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Dizziness, irritation

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, flush the contaminated skin with water promptly. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water promptly. If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: If small spill flush to sanitary sewer drain with large amounts of water. For large spills contain, absorb, collect and dispose.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to Take in Handling and Storing: Store at temperatures between 50-120 °F

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required during normal use of product,

Ventilation: Use adequate ventilation to remain below TLV.

Protective Gloves: Chemically resistant gloves

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Apron to prevent contact with work clothes

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A**Hazard Class: N/A**

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Detergent/Disinfectant #8756

Revised: August 24, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH</u>
<u>TLV*</u>			
Ethyl Alcohol	64-17-5	1000 ppm	
Sodium Tripolyphosphate	13573-18-7	Not established	
Sodium Carbonate	497-19-8	Not established	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.03
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	<1.0	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Red liquid, with mild odor	<u>pH:</u>	12.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Alcohol foam, carbon dioxide, dry chemical, water

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	1	

Section V - Reactivity Data:

Stability: Stable

Incompatibility (Conditions to avoid): Strong oxidizers, ammonia, surfactants. Avoid contact with aluminum, brass, copper, black iron or steel.

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen.

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion, inhalation

Health Hazards:

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Dizziness, irritation

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, flush the contaminated skin with water promptly. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water promptly. If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Flush small spill to sanitary sewer drain. For large spills contain, absorb, collect and dispose.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep away from heat. DO NOT store in aluminum containers.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Use gloves to avoid prolong contact, not required under normal

conditions.

Eye Protection: Not required under normal conditions.

Other Protective Clothing or Equipment: Not required under normal conditions.

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
	NONE	

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Liquid Manual Dishwashing Detergent #8757

Revised: August 25, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Sodium Dodecylbenzene Sulfonate	25155-30-0	None	None
Coconut Diethanolamine	N/A	None	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.01
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	>1.0
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100 %
<u>Appearance and Color:</u>	Green liquid with lemon-lime odor	<u>pH:</u>	10.0

Section IV - Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Alcohol foam, carbon dioxide, foam, water, sand
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Heat may cause noxious vapors.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): None known
Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit toxic vapors of carbon dioxide, carbon monoxide, and sulfur oxides

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Eye irritant

Chronic: No data available

Target Organs: Eye

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Eye and skin irritation

Medical Conditions Generally Aggravated by Exposure: Dermatitis

Emergency and First Aid Procedures:

Eye:	If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
Swallow:	If this product has been swallowed, get medical attention immediately.
Skin:	If this product contacts the skin, immediately wash the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and wash the skin with water. If symptoms occur after washing, get medical attention immediately.
Breathing:	Not applicable

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unuseable material properly. Residue quantities may be flushed to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Store between 50 and 120 °F

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Not required under normal conditions

Protective Gloves: Chemical resistant

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment: Protective apron

Work/Hygienic Practices:

Section IX - Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Liquid Machine Dishwashing Detergent #8758

Revised: August 25, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Potassium Hydroxide	1310-58-3	None	None
Sodium Hypochlorite	7681-52-9	None	None
Potassium Silicate	1312-76-1	None	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.272
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	<1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear liquid	<u>pH:</u>	13.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, dry chemical, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	2	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Potential reaction with acids, alcohols, and other

organic materials. Amines, ammonium salts, methanol,

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit fumes of Na₂O, K₂O, C

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Severe eye and skin irritation

Chronic: None Known

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation of the eyes, skin and respiratory system, coughing, and sneezing. Eye and skin burns, vomiting and diarrhea.

Medical Conditions Generally Aggravated by Exposure: Dermatitis

Emergency and First Aid Procedures:

- Eye:** If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:** If this product has been swallowed, get medical attention immediately.
- Skin:** If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.
- Breathing:** If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product does exhibit the hazardous characteristic of corrosivity (D002) listed in 40CFR 261, Subpart C. It is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Not required under normal conditions

Protective Gloves: Chemically resistant

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment: Protective or work clothing that becomes wet or significantly contaminated should immediately be removed and replaced. Workers whose clothing may have become contaminated should change into uncontaminated clothing before leaving the work place.

Work/Hygienic Practices: Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for a quick drenching the body should be provided within the immediate work area for emergency use where there is possibility of exposure.

Section IX - Additional Information:

DOT Shipping Name: Compounds, Cleaning Liquid, 8, NA1760, PG III

Hazard Class: Corrosive Liquid

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Cleaner/Sanitizer/Deodorizer #8759

Revised: August 25, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Ethyl Alcohol	64-17-5	1000 ppm	1000 ppm

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.0
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	>1.0
<u>Evaporation Rate: (Ethyl Ether =1):</u>	<1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Pink liquid with slight odor	<u>pH:</u>	7.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Water spray, dry chemical, carbon dioxide or alcohol foam.

Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: At high temperatures may emit carbon monoxide, carbon dioxide, ammonia, and nitrous oxides.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Strong oxidizers

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit vapors

of nitrous oxides, ammonia.

Section VI - Health Hazard Data:

Routes of Entry: Eye or skin contact

Health Hazards: *Acute:* May irritate eyes

Chronic: No specific information available.

Target Organs: Eyes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: May irritate eyes and mucous membranes. Skin irritation if prolong contact.

Medical Conditions Generally Aggravated by Exposure: None reported.

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately if irritation persists.

Skin: If this product contacts the skin, flush the contaminated skin with water promptly. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water promptly. If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Not required under normal conditions

Protective Gloves: Not required unless prolong exposure anticipated

Eye Protection: Goggles. Contact lenses should not be worn while working with chemicals.

Other Protective Clothing or Equipment:**Work/Hygienic Practices:**

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Liquid Rinse Additive #8760

Revised: August 25, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Surfactant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIHTLV*</u>
NONE			

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	0.99
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Dark Blue	<u>pH:</u>	7.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water fog, alcohol foam, carbon dioxide, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-container breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: None known

Section V - Reactivity Data:

Stability: STABLE
Incompatibility (Conditions to avoid): Strong oxidizers
Hazardous Polymerization: None known
Hazardous Decomposition Products: None known

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section VI - Health Hazard Data:

Routes of Entry: Eye, skin, ingestion**Health Hazards:** *Acute:**Chronic:* May cause sever skin damage on prolong contact*Target Organs:* Eyes, skin, gastrointestinal track**Carcinogenicity:** *NTP:* No *IARC:* No *OSHA:* No**Signs and Symptoms of Exposure:** May cause severe irritation, redness, swelling, discharge or corneal clouding in eye. May cause gastric upset, pain, diarrhea, lethargy if ingested.**Medical Conditions Generally Aggravated by Exposure:****Emergency and First Aid Procedures:**

- Eye:** If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:** If ingested dilute with water. Get medical attention immediately.
- Skin:** If this product contacts the skin, promptly wash the contaminated skin with soap and water. If this product penetrates the clothing, promptly remove the clothing and wash the skin with soap and water.
- Breathing:** If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.**Waste Disposal Method:** This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.**Precautions to be Taken in Handling and Storing:****Other Precautions:**

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions**Ventilation:** Not required under normal conditions**Protective Gloves:** Rubber gloves to prevent excessive skin contact**Eye Protection:** Goggles**Other Protective Clothing or Equipment:** Protective clothing to prevent excessive skin contact.**Work/Hygienic Practices:**

Section IX-Additional Information:

DOT Shipping Name: N/A**Hazard Class:** N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

Constituent**CAS #**
NONE**Concentration**

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Lime Scale Remover #8761

Revised: August 15th, 2001

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Acid/Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Phosphoric Acid	7664-38-2	1 mg/m ³	1 mg/m ³
Hydrochloric Acid	7647-01-0	5ppm, 7 mg/m ³	5ppm, 7 mg/m ³

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	>200 F.	<u>Specific Gravity:</u>	1.215
<u>Vapor Pressure:</u>	Like Water	<u>Vapor Density:</u>	0.7
<u>Evaporation Rate: (Ethyl Ether =1):</u>	1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Yellow, Acid Odor	<u>pH:</u>	1.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Dry chemical, carbon dioxide, foam, water

Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: None Expected

NFPA 704

Health -	3	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Strong caustics and most metals. Potential violent reaction with sodium tetrahydroborate. DO NOT mix with solutions containing bleach or ammonia. DO NOT mix with any other product.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Heating Phosphoric Acid to decomposition yields toxic Phosphorus Pentoxide Fumes.

Section VI - Health Hazard Data:

Routes of Entry: Eye and skin contact, inhalation and ingestion.

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Corrosive, causes severe burns to skin and eyes.

Target Organs: Eyes, skin, respiratory system

Acute: Moderately toxic by ingestion and skin contact, Irritant to eyes, skin, upper respiratory system and mucous membranes, and a systemic irritant by inhalation. Burns skin and causes dermatitis.

Chronic:

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water for at least 15 minutes, lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: When skin becomes contaminated wash immediately.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain, neutralize and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product does exhibit the hazardous characteristic of Corrosive (D002) as listed in 40CFR 261, Subpart C. It is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Protect containers from physical damage, store away from heat, separate from alkalis. Avoid skin and eye contact, do not mix this product with any other product, avoid breathing vapors. Store in a cool, dry place, wash thoroughly after handling. Follow normal housekeeping procedures.

Other Precautions: Do not mix with any other products.

Section VIII - Control Measures:

Respiratory Protection: Normally not needed. Supplied air or self contained breathing apparatus if above regulatory levels

Ventilation: Mechanical ventilation to reduce concentration to below regulatory levels

Protective Gloves: Wear chemical resistant gloves when handling this product

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact. Protective or work clothing that becomes wet should immediately be removed. Change work clothing daily.

Work/Hygienic Practices: Eyewash fountains and drench showers should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection.

Section IX-Additional Information:

DOT Shipping Name: Phosphoric Acid Solution, 8, UN1805, PG III

Hazard Class: Corrosive Material

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Phosphoric Acid	7664-38-2	>19%

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Liquid Toilet Bowl Cleaner #8762

Revised: August 25, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Acidic Cleaner

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Hydrochloric Acid	7647-01-0	5 ppm (7mg/m ³)	
Ethyl Alcohol	64-17-5	1000 ppm	
Styrene	100-42-6-5	100 ppm	
Formaldehyde	50-00-0	0.016 ppm(Carcinogen)	
Ammonia	7664-41-7	50 ppm	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.07
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	>1.0
<u>Evaporation Rate: (Ethyl Ether =1):</u>	>1	<u>Solubility in Water:</u>	100 %
<u>Appearance and Color:</u>	Milky white liquid, with slight odor	<u>pH:</u>	1.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 °F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Alcohol foam, carbon dioxide, dry chemical, water spray
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Hydrochloric acid reacts with most metals to generate explosive hydrogen gas. May emit carbon monoxide, chlorine and other toxic vapors.

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE**Incompatibility (Conditions to avoid):** Hydroxides, amines, alkalies. Highly corrosive to most metals.**Hazardous Polymerization:** None known**Hazardous Decomposition Products:** When heated to decomposition may emit fumes of hydrogen chloride and chlorine.

Section VI - Health Hazard Data:

Routes of Entry: Inhalation, Ingestion, Contact**Health Hazards:** *Acute:* Irritation of throat*Chronic:* None documented***Target Organs:*** Eyes, skin, respiratory system**Carcinogenicity:** *NTP:* No *IARC:* No *OSHA:* No**Signs and Symptoms of Exposure:** Irritation of eye, skin burns**Medical Conditions Generally Aggravated by Exposure:****Emergency and First Aid Procedures:**

- Eye:*** If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:*** If this product has been swallowed, get medical attention immediately.
- Skin:*** If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.
- Breathing:*** If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: CAUTION Material is highly corrosive to skin and metal. Contain, neutralize, and absorb spilled material, dispose of properly. Large spill may be collected using suitable vacuum equipment, dispose of unuseable material properly.**Waste Disposal Method:** This product does exhibit the hazardous characteristic of Corrosivity as listed in 40CFR 261, Subpart C. It is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.**Precautions to be Taken in Handling and Storing:****Other Precautions:**

Section VIII - Control Measures:

Respiratory Protection: Respiratory Protection is not typically required in the use of this product in well ventilated areas. 5 ppm to 50 ppm chemical cartridge respirators are suitable. Above 50 ppm self contained or supplied air respirators are required.

Ventilation: Mechanical ventilation.

Protective Gloves: Wear chemically resistant gloves to prevent skin contact.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent product from contacting eyes.

Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact. Protective or work clothing that becomes wet should immediately be removed.

Work/Hygienic Practices: Eyewash fountains and drench showers should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye or other personal protection.

Section IX-Additional Information:

DOT Shipping Name: Hydrochloric Acid Mixture, 8, UN 1789, PGIII

Hazard Class: Corrosive Material

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Hydrochloric Acid	7647-01-0	9.0%
Formaldehyde	50-00-0	<0.066%
Ammonia	7664-41-7	<0.0066%
Styrene	100-42-5	<0.132%

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Floor Wax Remover #8763

Revised: January 25, 2003

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent/Stripper

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Ethylene Glycol	107-21-1	None	
Monoisopropanolamine	78-96-6	None	
2-Butoxyethanol	111-76-2	50 ppm(240 mg/m ³)	25 ppm(skin)

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	>212° F	<u>Specific Gravity:</u>	1.02
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	<2
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear with slight odor	<u>pH:</u>	12.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200° F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Alcohol foam, carbon dioxide, dry chemical.
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing. Cool containers with water spray.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Strong oxidizers, chromium trioxide, potassium permanganate, sodium peroxide, heat and flame

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit toxic vapors of NO_x, acrid smoke, irritating vapors.

Section VI - Health Hazard Data:

Routes of Entry: Ingestion, skin contact

Health Hazards: *Acute:* May irritate eyes and skin

Chronic: None Known

Target Organs: Eyes and skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Eye, nose, throat and skin irritation, nausea, vomiting, abdominal pain, headache, weakness, dizziness, stupor, convulsions, central nervous system depression

Medical Conditions Generally Aggravated by Exposure: Skin sensitivity

Emergency and First Aid Procedures:

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:* If this product has been swallowed, get medical attention immediately.
- Skin:* If this product contacts the skin, immediately wash the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and wash the skin with water. If symptoms occur after washing, get medical attention immediately.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Not required under normal conditions

Protective Gloves: Wear appropriate personal protective clothing to prevent skin contact.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Remove clothing when wet or contaminated. Change

protective clothing daily.

Work/Hygienic Practices: Wash skin when contaminated.

Section IX-Additional Information:

DOT Shipping Name: Not applicable

Hazard Class: Not applicable

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Butyl Cellosolve(Glycol Ether)	111-76-2	2.82%
Ethylene Glycol	107-21-1	14.4%

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Floor Sealer #8764

Revised: April, 2001

Section I - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Floor Wax

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>	<u>Percentage</u>
Styrene	100-42-5	100 ppm	50 ppm	
Ammonia	7664-41-7	50 ppm		
Formaldehyde	50-00-0	0.0016 (carcinogen)		
Diethylene Glycol Mono-ethyl Ether	111-90-0	None established		

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212° F	<u>Specific Gravity:</u>	1.02
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	Approx. 1
<u>Evaporation Rate: (Ethyl Ether =1):</u>	Greater than 1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Milky white liquid, with slight odor		<u>pH:</u> 8.0

Section IV - Fire and Explosion Hazard Data:

Flash Point: > 200° F **Flammable Limits:** LEL: N/A UEL: N/A
Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam,
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Toxic vapor may be emitted upon burning.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Salt solutions or acids

Hazardous Polymerization: Salt solutions or acids may destabilize (coagulate) the product.

Hazardous Decomposition Products: Thermal decomposition may produce carbon monoxide or carbon dioxide, ammonia and other toxic vapors.

Section VI - Health Hazard Data:

Routes of Entry: Eye and skin contact

Health Hazards: *Acute:* Eye irritation

Chronic: None Known

Target Organs: Eye and skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Formaldehyde is a carcinogen, it is at very low concentrations in this product

Signs and Symptoms of Exposure: Eye irritation. In higher concentration respiratory system irritation

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, wash the contaminated skin with soap and water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions, if below regulatory levels

Ventilation: Required only to remain below regulatory levels

Protective Gloves: Chemically resistant

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Styrene	100-42-5	<0.2%
Ammonia	7664-41-7	<0.6%
Formaldehyde	50-00-0	<0.1%
Diethylene Glycol Monoethyl Ether	111-90-0	<3.0%

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Gloss Coat #8765

Revised: April, 2001

Section I - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Floor Wax

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Styrene	100-42-5	100 ppm	50 ppm
Ammonia	7664-41-7	50 ppm	25 ppm
Formaldehyde	50-00-0	0.75 ppm	0.3 ppm
Diethylene Glycol Mono-ethyl Ether	111-90-0	None	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	212 ° F	<u>Specific Gravity:</u>	1.02
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	
Disbursable			
<u>Appearance and Color:</u>	Milky white liquid with slight odor		<u>pH:</u> 8.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 ° F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, Carbon dioxide, dry chemical foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Toxic vapors and gases may be released when burned.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Salt solutions or acids may de-stabilize the emulsion.

Hazardous Polymerization: None known

Hazardous Decomposition Products: Thermal decompositions may produce carbon monoxide, carbon dioxide, ammonia and other toxic vapors.

Section VI - Health Hazard Data:

Routes of Entry: Contact, inhalation

Health Hazards: *Acute:* Eye irritation

Chronic: Sensitization of the skin, cancer (Formaldehyde)

Target Organs: Skin and eyes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No Formalin is in this product with

limited quantities.

Formaldehyde is a carcinogen

Signs and Symptoms of Exposure: Eye irritation

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:* If this product has been swallowed, get medical attention immediately.
- Skin:* If this product contacts the skin, promptly wash the contaminated skin with water. If this product penetrates the clothing promptly remove the clothing and wash the skin with water. If irritation persists after washing, get medical attention.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required if adequate ventilation is maintained; otherwise an approved organic vapor full-face respiratory is advised

Ventilation: Local mechanical ventilation

Protective Gloves: Rubber or PVC

Eye Protection: Goggles or safety glasses with shields

Other Protective Clothing or Equipment:

Work/Hygienic Practices: Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for a quick drenching the body should be provided within the immediate work area for emergency use where there is possibility of exposure.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Formaldehyde	50-00-0	< 0.2 %
Styrene	100-42-5	< 0.2%
Ammonia	7664-41-7	< 0.6%
Diethylene Glycol Monoethyl Ether	111-90-0	< 3.0%

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Carpet Steam Cleaner #8766

Revised: August 25, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Sodium Metasilicate	6834-92-0	None	
Tetrapotassium Pyrophosphate	7320-34-5	None	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	>200 ° F	<u>Specific Gravity:</u>	0.94
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear liquid with slight odor	<u>pH:</u>	14.0

Section IV - Fire and Explosion Hazard Data:

Flash Point: >200 ° F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, alcohol foam, dry chemical.
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): Strong mineral or organic acids
Hazardous Polymerization: Will not occur
Hazardous Decomposition Products:

Section VI - Health Hazard Data:

Routes of Entry: Contact**Health Hazards:** *Acute:* Irritation, Skin & Eyes*Chronic:* None Known*Target Organs:* Skin, Eyes**Carcinogenicity:** *NTP:* No *IARC:* No *OSHA:* No**Signs and Symptoms of Exposure:** Irritation to skin and eyes**Medical Conditions Generally Aggravated by Exposure:****Emergency and First Aid Procedures:**

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unuseable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Not required under normal conditions

Protective Gloves: Resistant

Eye Protection: Goggles or face shield

Other Protective Clothing or Equipment:

Work/Hygienic Practices:

Section IX - Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Liquid Hand & Body Soap #8767

Revised: August 25, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Soap

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Formalin	50-00-0	0.75 ppm	
Diethanolamine	111-42-2	NONE	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.02
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100 %
<u>Appearance and Color:</u>	Green liquid with lemon-lime odor.	<u>pH:</u>	9.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200°F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, alcohol foam, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

Section V - Reactivity Data:

Stability: STABLE
Incompatibility: (Conditions to avoid): Strong Oxidizers
Hazardous Polymerization: None known
Hazardous Decomposition Products: If heated to decomposition may emit toxic and acrid vapors including sulfur dioxide and hydrogen sulfide.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section VI - Health Hazard Data:

Routes of Entry: Contact**Health Hazards:** *Acute:* Eye irritant, Mist may cause irritation of nasal passages*Chronic:* Skin irritant,*Target Organs:* Eyes, skin, mucous membranes**Carcinogenicity:** *NTP:* NO *IARC:* NO *OSHA:* No**Medical Conditions Generally Aggravated by Exposure:****Emergency and First Aid Procedures:**

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:* Get medical attention immediately.
- Skin:* If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Small quantities may be flushed with large amounts of water to a sanitary sewer. Large spill may be collected using vacuum equipment, dispose of unuseable material properly.**Waste Disposal Method:** This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.**Precautions to be Taken in Handling and Storing:****Other Precautions:**

Section VIII - Control Measures:

Respiratory Protection: Not required**Ventilation:** Not required**Protective Gloves:** Not required**Eye Protection:** Not required**Other Protective Clothing or Equipment:** Not required**Work/Hygienic Practices:**

Section IX-Additional Information:

DOT Shipping Name: Not applicable**Hazard Class:** Not applicable

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Formalin	50-00-0	0.42%
Diethanolamine	111-42-2	0.62%

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Non-Phosphate Machine Dish Detergent #8768 Revised: August 25, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Potassium Hydroxide	1310-58-3		None
Sodium Hypochlorite	7681-52-9		None
Potassium Silicate	1312-76-1		None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	>200 ° F	<u>Specific Gravity:</u>	0.92
<u>Vapor Pressure:</u>	>1	<u>Vapor Density:</u>	>1
<u>Evaporation Rate: (Ethyl Ether =1):</u>	>1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear Liquid	<u>pH:</u>	14.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 ° F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, alcohol foam, dry chemical, water
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Acids, metals, halogenated hydrocarbons

Hazardous Polymerization: None known

Hazardous Decomposition Products: If heated to the point of decomposition may emit vapors of K₂O

Section VI - Health Hazard Data:

Routes of Entry: Contact, inhalation, ingestion

Health Hazards: *Acute:* Eye, skin and respiratory irritation

Chronic: None Known

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure:

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unuseable material properly.

Waste Disposal Method: It does exhibit the hazardous characteristic of corrosivity (D002) listed in 40CFR 261, Subpart C. This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Local ventilation

Protective Gloves: Chemical resistant

Eye Protection: Wear goggles to prevent eye contact

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Eyewash fountains should be provided in areas where there is any

possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for a quick drenching the body should be provided within the immediate work area for emergency use where there is possibility of exposure.

Section IX - Additional Information:

DOT Shipping Name: Compounds, Cleaning Liquid, Class 8, NA1760, PG III

Hazard Class: Corrosive Liquid

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Iodophor Disinfectant Concentrate #8769

Date: August 25, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Phosphoric Acid	7664-38-2		1 mg/m ³
Iodine	7553-53-2		1 mg/m ³

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	213 ° F	<u>Specific Gravity:</u>	1.13
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	>1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Dark brown liquid, mild iodine odor	<u>pH:</u>	4.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200 ° F Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, Carbon dioxide
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: May emit toxic vapors of iodine and phosphorus oxides at high temperatures

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Reducing agents, alkalies, strong oxides,

chlorinated compounds. DO NOT mix with solutions containing bleach or ammonia.

Hazardous Polymerization: None known

Hazardous Decomposition Products: At high temperatures may emit iodine vapors.

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Burns upon contact

Chronic: Dermatitis

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation to eyes, skin, upper respiratory system.

Eye and skin burns, dermatitis

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:* If this product has been swallowed, get medical attention immediately. DO NOT induce vomiting.
- Skin:* If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain, neutralize with soda ash or sodium bicarbonate and sodium thiosulfate or sodium sulfite and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unuseable material properly. Flush residue material to sanitary sewer with large amounts of water.

Waste Disposal Method: For disposal purposes this product does exhibit the hazardous waste characteristic of Corrosivity (D002), listed in 40CFR 261, Subpart C. It is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: This product is toxic to aquatic life. Keep out of lakes, ponds, or streams. Do not contaminate water by cleaning equipment or disposal of wastes into water ways.

Other Precautions: Avoid contamination of food or feed stuff. Keep containers closed

when not in use, Do not store below 0 °F or above 100 °F for extended periods. Do not reuse containers.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions. Follow NIOSH/OSHA guidance for respiratory program if required.

Ventilation: Mechanical if required.

Protective Gloves: Wear acid resistant gloves such as rubber or neoprene

Eye Protection: Wear goggles or full face shield.

Other Protective Clothing or Equipment:

Work/Hygienic Practices: Change clothes at the end of each work day.

Section IX - Additional Information:

DOT Shipping Name: Phosphoric Acid Solution, 8, UN1805, PG III

Hazard Class: Corrosive Liquid

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Phosphoric Acid	7664-38-2	16 %

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: High-Speed Burnishable Floor Finish #8770

Revised: August 25, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Floor Wax

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>Approx. % (w/w)</u>
Tributoxyethyl phosphate	78-51-3	2.8
Diethylene glycol monoethyl ether	111-90-0	2.8
Zinc ammonium carbonate compound	38714-47-5	1.15
Non-hazardous and other ingredients	Proprietary	Balance

Section III - Hazards Identification

Emergency Overview: May cause digestive tract irritation. Ingestion may cause nausea, vomiting, pain, upset stomach, diarrhea. May cause eye irritation. Prolonged or repeated contact may cause skin irritation. Prolonged exposure may cause eye, nose and respiratory tract irritation. See sections 3, 5, & 6.

Primary routes of exposure: Eye. Skin. Inhalation (breathing).

Eye Contact: May cause slight to mild irritation. Can cause burning sensation, tearing, and redness.

Skin Contact: Prolonged or repeated contact may cause irritation. May be absorbed through the skin.

Inhalation (Breathing): Can be irritating nose and respiratory tract following prolonged exposure.

Ingestion (Swallowing): Irritating to the mouth, throat, and stomach. May cause nausea, vomiting, pain, and stomach upset (e.g. diarrhea).

Target Organs/Chronic Effects: Lungs and respiratory system. Eyes.

Conditions aggravated by exposure: Skin.

Carcinogenicity:

	ACGIH	IARC	NTP	OSHA
Tributoxethyl phosphate	No	No	No	No
Diethylene glycol monoethyl ether	No	No	No	No
Zinc ammonium carbonate compound	No	No	No	No

NFPA 704

Health - 1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire - 0	
Reactivity- 0	

Section IV - First Aid Measures:

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin Contact: Immediately flush with water. Remove contaminated clothing and shoes. Get medical attention if irritation persists. Professionally wash clothing and shoes before re-use.

Inhalation (Breathing): Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration.

Ingestion (Swallowing): Seek medical attention. Immediately induce vomiting, as directed by medical personnel. Never give anything by mouth to an unconscious person.

Notes to Physicians: Treatment should be directed at preventing absorption, administering to symptoms (if they occur) and providing supportive therapy.

Section V - Fire Fighting Methods:

Flash Point: Not applicable

Method: Not applicable

Explosive Limits: LEL (%) Not Determined

UEL (%) Not Determined

Autoignition: Not Determined

Hazardous Combustion and Decomposition Products: Smoke, soot, and toxic/irritating fumes (i.e., carbon dioxide, carbon monoxide, etc.)

Fire and Explosion Hazards: During a fire, irritating and highly toxic gases may be generated during combustion or decomposition.

Extinguishing Media: Water-based material that will not burn until all of water has boiled away. Residual solids and/or product container may support combustion. Use water, foam, dry chemical or carbon dioxide.

Fire Fighting Procedures/Equipment: Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH-approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.

Section VI - Accidental Release Measures

Evacuation: Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Containment: Safely stop discharge. Contain material, as necessary, with a dike or other barrier. Stop material from contaminating soil, or from entering sewers or bodies of water.

Clean-up Personal Protection Equipment: Appropriate safety measures and protective equipment should be used.

Collection and Disposal: Stop discharge, if safe to do so. Use proper protective equipment. Cover spills with absorbent clay or sawdust and place in closed chemical waste containers. Dispose of according to applicable local, state and federal regulations.

Reporting: Spills of this material in excess of a component's RQ must be reported to the National Response Center (1-800-424-8802) and to the appropriate state and local emergency response organizations. No regulated ingredients.

Section VII - Handling and Storage:

Storage Temperature: <120F 48.8C

Storage Conditions: Store in cool, dry, well ventilated area. Protect from freezing.

Transfer: No special precautions are needed. Follow good handling practices.

Personal Hygiene: Wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles faceshield, and gloves. Professionally launder contaminated clothing before re-use.

Empty Container Precautions: Attention! This container can be hazardous when empty. Follow label warnings even after the container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing or products for human or animal consumption or where skin contact can occur.

Section VIII - Exposure Controls/Personal Protection:

Exposure Guidelines

ACGIH - TLV - No regulated ingredients

OSHA - PEL - No regulated ingredients

Engineering Controls/Ventilation: Local exhaust ventilation is recommended when vapors, mists or dusts can be released.

Eye Protection: Wear chemical splash goggles or safety glasses with side shields. An eye wash facility should be readily available.

Skin Protection: Wear protective clothing and appropriate impervious gloves. Because a variety of protective glove exist, consult glove manufacturer to determine the proper type for a specific operation.

Respiratory Protection: Wear NIOSH/MSHA-approved equipment. Determine the appropriate type by consulting the respirator manufacturer. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. Respiratory protection programs must be in compliance with 29 CFR 1910.134.

Section IX - Physical and Chemical Properties:

Appearance	white	Odor	Mild
Physical State	liquid	Solubility	Dispersible
pH.....	9.0	Boiling Point.....	212F 100C
VOC Material.....	Not Determined	Specific Gravity.....	1.05
%Non-Vol (w/w).....	38		

Section X - Stability and Reactivity

Chemical Stability: Stable under normal conditions of use.

Hazardous Polymerization: Will not occur

Conditions to Avoid: High Temperatures

Incompatibility with other Materials: Oxidizers.

Section XI - Disposal Considerations:

Disposal: Dispose of in accordance with all local, state, and federal regulations.

General Statements: Federal regulations may apply to empty container. State and/or local regulations may be different.

General Recommendations: Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: 1) recycle or rework, if feasible; 2) incinerate at an authorized facility; or 3) treat at an acceptable waste treatment facility.

Special Instructions: Be sure to contact the appropriate government environmental agencies if further guidance is required.

MATERIAL SAFETY DATA SHEET

NH

Trade Name: Citrus Magic Super-cleaner, #8771

Date Revised: August 25, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*	Percentage
D'Limonene	5989-27-5	not established	not established	<12%
Butyl Carbitol	112-34-5	not established	not established	<5%
Diethanolamine	111-42-2	3 PPM	3 PPM	<3%

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: 214° F. Specific Gravity: 1.04
Vapor Pressure: Same as Water Vapor Density: N/A
Evaporation Rate: (Ethyl Ether =1): 1.0 pH: 10
Solubility in Water: Complete
Appearance and Color: Amber liquid, citrus odor

Section IV- Fire and Explosion Hazard Data:

Flash Point: >200°F. Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water spray, dry chemical, CO2 or alcohol type foam
Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers and structures exposed.
Unusual Fire and Explosion Hazards: Extinguish all nearby sources of ignition.

NFPA 704

Health - 1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire - 1	
Reactivity- 0	

Section V - Reactivity Data:

Stability: Stable Conditions to avoid: Heat, sparks and open flame
Incompatibility: Strong oxidizing agent and acidic agents including clays.
Hazardous Polymerization: None
Hazardous Decomposition Products: None Known

Section VI - Health Hazard Data:

Routes of Entry: skin, inhalation, ingestion
Signs & Symptoms of Exposure: *Inhalation:* No effects expected. In very high concentrations only, headache, giddiness, mental confusion, nausea. *Skin Contact:* May be irritating to skin. *Eye Contact:* Contact with eyes will be painful and irritating. It may cause chemical burns.

Chronic Effects: No specific information available

Carcinogenicity: *NTP:* No *LARC:* No *OSHA:* No

Emergency and First Aid Procedures:

Eyes: Immediately flush with running water for at least 15 minutes. Consult a physician.

Skin: Immediately flush with running water for at least 15 minutes. If irritation persists, consult a physician.

Ingestion: Do not induce vomiting. Immediately consult a physician.

Inhalation: Move to fresh air, aid in breathing and get medical help.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill:

Waste Disposal Method: Dispose of material in accordance with all local, state and federal regulations.

Precautions to be Taken in Handling and Storing: Store in dry location at room temperature. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing vapors. Use with adequate ventilation. Keep containers and vapors away from heat, sparks and flames. Keep container closed when not in use.

Other Precautions: Do not reuse container. Containers, even when empty, will retain product residue and vapors. Handle empty containers as though they were full. Minimize skin contact. Ventilate confined spaces. Keep product out of sewers.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal use.

Ventilation: Use adequate ventilation.

Protective Gloves: Rubber or PVC

Eye Protection: OSHA approved goggles w/side shields.

Other Protective Clothing or Equipment: Rubber apron recommended.

Section IX-Additional Information:

DOT Shipping Name: N/A**Hazard Class: N/A**

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
	NONE	

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Citrus Magic Glass Cleaner, #8772

Date Revised: August 25, 2000

Section I - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*	Percentage
D'Limonene	5989-27-5	not established	not established	<1%
Butyl Carbitol	112-34-5	not established	not established	<1%
Diethanolamine	111-42-2	3 PPM	3 PPM	<1%

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). *Other Limits* are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: 214° F.	Specific Gravity: 1.04
Vapor Pressure: Same as Water	Vapor Density: N/A
Evaporation Rate: (Ethyl Ether =1): 1.0	pH: 6.0
Solubility in Water: Complete	
Appearance and Color: Amber liquid, citrus odor	

Section IV - Fire and Explosion Hazard Data:

Flash Point: >200°F. Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water spray, dry chemical, CO2 or alcohol type foam
Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers and structures exposed.
Unusual Fire and Explosion Hazards: Extinguish all nearby sources of ignition.

Section V - Reactivity Data:

Stability: Stable Conditions to avoid: Heat, sparks and open flame
Incompatibility: Strong oxidizing agent and acidic agents including clays.
Hazardous Polymerization: None
Hazardous Decomposition Products: None Known

NFPA 704

Health - 1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire - 1	
Reactivity- 0	

Section VI - Health Hazard Data:

Routes of Entry: skin, inhalation, ingestion

Signs & Symptoms of Exposure: *Inhalation:* No effects expected. In very high concentrations only, headache, giddiness, mental confusion, nausea. *Skin Contact:* May be irritating to skin. *Eye Contact:* Contact with eyes will be painful and irritating. It may cause chemical burns.

Chronic Effects: No specific information available

Carcinogenicity: NTP: No

LARC: No

OSHA: No

Emergency and First Aid Procedures:

Eyes: Immediately flush with running water for at least 15 minutes. Consult a physician.

Skin: Immediately flush with running water for at least 15 minutes. If irritation persists, consult a physician.

Ingestion: Do not induce vomiting. Immediately consult a physician.

Inhalation: Move to fresh air, aid in breathing and get medical help.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill:

Waste Disposal Method: Dispose of material in accordance with all local, state and federal regulations.

Precautions to be Taken in Handling and Storing: Store in dry location at room temperature. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing vapors. Use with adequate ventilation. Keep containers and vapors away from heat, sparks and flames. Keep container closed when not in use.

Other Precautions: Do not reuse container. Containers, even when empty, will retain product residue and vapors. Handle empty containers as though they were full. Minimize skin contact. Ventilate confined spaces. Keep product out of sewers.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal use.

Ventilation: Use adequate ventilation.

Protective Gloves: Rubber or PVC

Eye Protection: OSHA approved goggles w/side shields.

Other Protective Clothing or Equipment: Rubber apron recommended.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
	NONE	

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in advance of need that the information is current, applicable, and suitable to their circumstances.

MATERIAL SAFETY DATA SHEET

NH

Trade Name: Citrus Magic Spray Degreaser, #8773

Date Revised: August 28, 2000

Section I - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*	Percentage
D'Limonene	5989-27-5	not established	not established	<1%
Butyl Carbitol	112-34-5	not established	not established	<1%
Diethanolamine	111-42-2	3 PPM	3 PPM	<1%

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). *Other Limits* are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: 214° F.	Specific Gravity: 1.04
Vapor Pressure: Same as Water	Vapor Density: N/A
Evaporation Rate: (Ethyl Ether =1): 1.0	pH: 9.0
Solubility in Water: Complete	
Appearance and Color: Amber liquid, citrus odor	

Section IV - Fire and Explosion Hazard Data:

Flash Point: >200°F. Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water spray, dry chemical, CO2 or alcohol type foam
Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers and structures exposed.
Unusual Fire and Explosion Hazards: Extinguish all nearby sources of ignition.

Section V - Reactivity Data:

Stability: Stable Conditions to avoid: Heat, sparks and open flame
Incompatibility: Strong oxidizing agent and acidic agents including clays.
Hazardous Polymerization: None
Hazardous Decomposition Products: None Known

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section VI - Health Hazard Data:

Routes of Entry: skin, inhalation, ingestion

Signs & Symptoms of Exposure: *Inhalation:* No effects expected. In very high concentrations only, headache, giddiness, mental confusion, nausea. *Skin Contact:* May be irritating to skin. *Eye Contact:* Contact with eyes will be painful and irritating. It may cause chemical burns.

Chronic Effects: No specific information available

Carcinogenicity: *NTP:* No

LARC: No

OSHA: No

Emergency and First Aid Procedures:

Eyes: Immediately flush with running water for at least 15 minutes. Consult a physician.

Skin: Immediately flush with running water for at least 15 minutes. If irritation persists, consult a physician.

Ingestion: Do not induce vomiting. Immediately consult a physician.

Inhalation: Move to fresh air, aid in breathing and get medical help.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill:

Waste Disposal Method: Dispose of material in accordance with all local, state and federal regulations.

Precautions to be Taken in Handling and Storing: Store in dry location at room temperature. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing vapors. Use with adequate ventilation. Keep containers and vapors away from heat, sparks and flames. Keep container closed when not in use.

Other Precautions: Do not reuse container. Containers, even when empty, will retain product residue and vapors. Handle empty containers as though they were full. Minimize skin contact. Ventilate confined spaces. Keep product out of sewers.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal use.

Ventilation: Use adequate ventilation.

Protective Gloves: Rubber or PVC

Eye Protection: OSHA approved goggles w/side shields.

Other Protective Clothing or Equipment: Rubber apron recommended.

Section IX-Additional Information:

DOT Shipping Name: N/A**Hazard Class: N/A**

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
	NONE	

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Quarry Tile Cleaner #8774

Revised: August 28, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Trisodium Phosphate	7601-54-9	None	None
Sodium Carbonate	497-19-8	None	None
Sodium Tripolyphosphate	13573-18-7	None	None
Sodium Metasilicate	6834-92-0	None	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	0.92
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Orange powder with mild odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, alcohol foam, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS
Fire -	0	4 - Extreme
Reactivity-	0	3 - Severe
		2 - Moderate
		1 - Slight
		0 - None

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid):

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition emits toxic fumes of Na_2O and PO_x

Section VI - Health Hazard Data:

Routes of Entry: Contact and ingestion

Health Hazards: *Acute:* Irritation of eyes and skin

Chronic: None Known

Target Organs: Eyes and Skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation

Medical Conditions Generally Aggravated by Exposure: Dermatitis

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately.

Skin: If this product contacts the skin, flush the contaminated skin with water promptly. If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Collect spilled material dispose of properly. Dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions. If required use NIOSH approved respirator.

Ventilation: General ventilation is adequate. Use local exhaust fan if needed.

Protective Gloves: Chemical resistant

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment:

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

ConstituentCAS #Concentration

NONE

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Bowl Cleaner - Granular #8775

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>	
<u>Percentage</u>				
Sodium Bisulfate	7681-38-1	10 mg/m ³	N/A	94.!

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.32
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Off white granular material with mild odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: NONE Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Water or dry chemical as appropriate to combustibles in the area of the fire.

Special Fire Fighting Procedures: Product readily dissolves in water to form a weak sulfuric acid solution. No gases or toxic fumes are emitted from this reaction, but precautions for exposure to sulfuric acid should be followed.

Unusual Fire and Explosion Hazards: If water is used to extinguish combustibles and product is dissolved in water forming sulfuric acid, wear acid protective equipment. If elevated temperatures (<570° F) are reached, self-contained breathing apparatus should be worn.

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Avoid contact with strong alkaline materials such

as caustic. Reacts with water to form a weak sulfuric acid solution.

Hazardous Polymerization: None known

Hazardous Decomposition Products: If heated in excess of 570° F sulfur dioxide and sulfur trioxide are formed.

Section VI - Health Hazard Data:

Routes of Entry: Contact, inhalation, ingestion

Health Hazards: *Acute:* Irritation

Chronic: None Known

Target Organs: Eyes, skin, respiratory tract

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Mild to strong irritation to eyes, skin, nose, mouth, throat, lungs, esophagus and stomach.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately. DO NOT use chemical antidotes or neutralizing solutions.
- Swallow:* If this product has been swallowed, get medical attention immediately. DO NOT induce vomiting.
- Skin:* If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unusable material properly. Neutralize non-collectable material with weak alkaline solution. May be flushed to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep containers closed and in dry conditions.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: NIOSH or MSA certified dust mask should be worn when handling this product.

Ventilation: Local ventilation with dust collector is recommended.

Protective Gloves: Wear acid resistant gloves such as rubber or neoprene.

Eye Protection: Safety goggles or full face shield

Other Protective Clothing or Equipment: Clothes should completely cover skin to avoid skin contact.

Work/Hygienic Practices: Change clothing at the end of each work day.

Section IX-Additional Information:

DOT Shipping Name: Not applicable

Hazard Class: Not applicable

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Scouring Cleanser #8776

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Cleaning Compound

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Silica (respirable quartz)	14808-60-7 %SiO ₂ + 2	<u>10mg/m3</u>	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.07
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	White powder with mild odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Dry chemical, carbon dioxide, sand
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Hydroflouric acid, reducing agents and other acids

Hazardous Polymerization: None known

Hazardous Decomposition Products: None Known

Section VI - Health Hazard Data:

Routes of Entry: Contact, inhalation

Health Hazards: *Acute:* Coughing, difficulty breathing, wheezing, eye irritation

Chronic: Decreased pulmonary function, Silicosis

Target Organs: Eyes, Respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure:

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using dust less or wet vacuum equipment, dispose of unuseable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Good Industrial hygiene practices recommend that engineering controls be used to reduce concentrations to the permissible exposure level. If controls are impractical and respirators are required then a complete respiratory protection program should be instituted.

Ventilation: Mechanical

Protective Gloves: None needed under normal conditions

Eye Protection: None needed under normal conditions

Other Protective Clothing or Equipment: None needed under normal conditions

Work/Hygienic Practices: Practice good housekeeping

Section IX-Additional Information:

DOT Shipping Name: Not applicable

Hazard Class: Not applicable

This product contains the following compounds which are subject to the reporting requirements of

Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Floor Cleaning Compound #8777

Revised: August 28, 2000

Section I - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Trisodium Phosphate	7601-54-9	None	None
Sodium Carbonate	497-19-8	None	None
Sodium Tripolyphosphate	13573-18-7	None	None
Sodium Metasilicate	6834-92-0	None	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	0.92
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100 %
<u>Appearance and Color:</u>	Orange powder with mild odor		

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, alcohol foam, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid):
Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition emits toxic fumes of Na_2O and PO_x

Section VI - Health Hazard Data:

Routes of Entry: Contact and ingestion

Health Hazards: *Acute:* Irritation of eyes and skin

Chronic: None Known

Target Organs: Eyes and Skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation

Medical Conditions Generally Aggravated by Exposure: Dermatitis

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately.

Skin: If this product contacts the skin, flush the contaminated skin with water promptly. If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Collect spilled material dispose of properly. Dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions. If required use NIOSH approved respirator.

Ventilation: General ventilation is adequate. Use local exhaust fan if needed.

Protective Gloves: Chemical resistant

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment:

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of

Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Granular Manual Dishwashing Detergent #8778 Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Sodium Sulphate	7757-82-6	None	
Sodium Bicarbonate	144-55-8	None	
Sodium Tripolyphosphate	13573-18-7	None	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.03
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	White granular powder		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Dry chemical, carbon dioxide
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Flammable when exposed to heat.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE under normal conditions. May become unstable and can explode on rapid heating or percussion.

Incompatibility(Conditions to avoid): Strong oxidizers, acids, aluminum. Reacts with carbon, diazonium salts, n,n-dichloromethylamine; o-nitroaniline diazonium salt and water..

Hazardous Polymerization: None known.

Hazardous Decomposition Products: At high temperatures carbon dioxide, sulfur oxides, and Na₂O.

Section VI - Health Hazard Data:

Routes of Entry: Contact

Health Hazards: *Acute:* Eye, skin and mucous membrane irritation

Chronic: None Known

Target Organs: Eyes, skin and mucous membranes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: eye irritation

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: Get medical attention immediately.

Skin: Flush with water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect and dispose of unuseable material. May flush residue with large amounts of water to sanitary sewer.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if it become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Store in dry place between 50 and 120°F.

High humidity may cause caking

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Not required under normal conditions.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Wash hands after use

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET NH

Trade Name: Granular Machine Dishwashing Detergent #8779

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Technical/ER Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL *	ACGIH TLV*
Sodium Tripolyphosphate		13573-18-7	None
Sodium Metasilicate		6834-92-0	None
Sodium Carbonate		497-19-8	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point:	N/A	Specific Gravity:	0.95
Vapor Pressure:	N/A	Vapor Density:	N/A
Evaporation Rate: (Ethyl Ether =1):	N/A	Solubility in Water:	100%
Appearance and Color:	White granular material with mild odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media:
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: None Known

NFPA 704

Health - 2	HAZARDS
Fire - 0	4 - Extreme
Reactivity - 0	3 - Severe
	2 - Moderate
	1 - Slight
	0 - None

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Strong oxidizers,

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit toxic vapors, of Cl^- , NaO , Na_2O .

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Eye and skin irritation particularly on wet skin, gastrointestinal irritation

Chronic: None Known

Target Organs: Eyes, Wet Skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Ingestion may cause ulceration and stomach bleeding, gastrointestinal irritation, salivation, lacrimation, dyspnea, weakness, emaciation, lethargy, diarrhea and coma.

Medical Conditions Generally Aggravated by Exposure: No data

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately

Skin: Flush overexposed skin with water

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unuseable product properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261,

NFPA 704

Health – 2	HAZARDS
Fire – 0	4 – Extreme
Reactivity - 0	3 – Severe
	2 – Moderate
	1 – Slight
	0 – None

Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep Dry

Other Precautions: None

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Not required under normal conditions.

Eye Protection: Not required under normal conditions.

Other Protective Clothing or Equipment: Not required under normal conditions.

Work/Hygienic Practices: Wash hands after use

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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NFPA 704

Health	- 2	HAZARDS
Fire	- 0	4 - Extreme
Reactivity	- 0	3 - Severe
		2 - Moderate
		1 - Slight
		0 - None

MATERIAL SAFETY DATA SHEET

NH

Trade Name: Laundry Built Detergent #8780

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Sodium Sulfate	7757-82-6	None	
Sodium Tripolyphosphate	13573-18-7	None	
Sodium Carbonate		497-19-8	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.07
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A		
<u>Solubility in Water:</u>	100%		
<u>Appearance and Color:</u>	White powder		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, carbon dioxide, dry chemical, alcohol foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Can react violently with Aluminum, phosphoric

acid, sulfuric acid, fluoride, lithium, and 2,4,6-trinitro-toluene.

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit toxic fumes of Na_2O , SO_x , and PO_x .

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Eye and skin irritant

Chronic: None Known

Target Organs: Eye, Skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Ingestion of large amounts may cause catharsis, hemorrhage from the intestine.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, remove the contaminated clothing and wash the contaminated skin with soap and water. If irritation persists contact physician.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, properly dispose of unuseable product.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry.

Other Precautions: None.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Not required under normal conditions.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to

prevent skin contact.

Work/Hygienic Practices: Remove clothing if it becomes contaminated. Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET NH

Trade Name: Synthetic Laundry Detergent #8781

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Technical/ER Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Sodium Sulfate		7757-82-6	None
Sodium Tripolyphosphate		13573-18-7	None
Sodium Carbonate		497-19-8	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	0.95
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A		
<u>Solubility in Water:</u>	100%		
<u>Appearance and Color:</u>	White powder		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, Dry chemical, foam, water spray
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: No data

NFPA 704

Health - 1	HAZARDS
Fire - 0	4 - Extreme
Reactivity - 1	3 - Severe
	2 - Moderate
	1 - Slight
	0 - None

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Can react with aluminum, phosphoric acid, sulfuric acid, fluoride, lithium, 2,4,6-trinitro-toluene.

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition can emit toxic fumes of Na₂O, PO_x, and SO_x.

Section VI - Health Hazard Data:

Routes of Entry: Contact and ingestion

Health Hazards: *Acute:* Eye and skin irritant, gastrointestinal irritation

Chronic: None Known

Target Organs: Eye, skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Ingestion of large amounts may cause catharsis, hemorrhages of the intestine.

Medical Conditions Generally Aggravated by Exposure: No data

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, wash the contaminated skin with soap and water. If irritation persists get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unuseable product.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they

NFPA 704

Health – 1	HAZARDS
Fire – 0	4 – Extreme
Reactivity - 1	3 – Severe
	2 – Moderate
	1 – Slight
	0 – None

become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry.

Other Precautions: None.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Wear chemically resistant gloves.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Remove contaminated clothing. Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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NFPA 704

Health – 1	HAZARDS
Fire – 0	4 – Extreme
Reactivity - 1	3 – Severe
	2 – Moderate
	1 – Slight
	0 – None

MATERIAL SAFETY DATA SHEET

NH

Trade Name: Laundry Dry Bleach #8782

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Sodium Sulfate	7757-82-6	None	
Sodium Tripolyphosphate	13573-18-7	None	
Sodium Dichloro-s-triazinetriene	2244-21-5	None	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.076
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	White powder with mild odor.		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, dry chemical, carbon dioxide.
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Containers may rupture explosively if contaminated or exposed to heat.

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): May react with aluminum. Contact with organic or easily oxidizable materials may result in fire.

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit fumes of PO_x , SO_x and Na_2O .

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Irritation and/or burns to eyes, skin, respiratory tract, mucous membranes and gastrointestinal tract.

Chronic: None Known

Target Organs: Eyes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Ingestion of large amounts may cause catharsis, hemorrhages from the intestine.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:* If this product has been swallowed, get medical attention immediately.
- Skin:* If this product contacts the skin, promptly wash the contaminated skin with soap and water. If this product penetrates the clothing, promptly remove the clothing and wash the skin with soap and water.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unuseable product. Residue quantity may be flushed with large amounts of water to the sanitary sewer.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry, high humidity may cause caking.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Chemically resistant

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Remove contaminated clothing, wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Laundry Alkali Builder #8783

Revised: September 15, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Surfactant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Sodium Metasilicate	6834-92-0	None	
Sodium Carbonate		497-19-8	None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	0.97
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A		
<u>Solubility in Water:</u>	100%		
<u>Appearance and Color:</u>	White powder with slight odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, dry chemical, foam, water spray
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Can react with flouride, aluminum, phosphoric acid, sulfuric acid, lithium, 2,4,6-trinitro-toluene.

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit fumes of Na₂O, PO_x, and Na₂O.

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards *Acute:* Eye irritation

Chronic: None Known

Target Organs: Eye

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Severe eye, skin and mucous membrane irritation. Ingestion causes gastrointestinal tract upset, hemorrhages from the intestine. Large doses may cause catharsis.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention.

Skin: Flush with water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unuseable product.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Use good housekeeping practices and keep dry.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions.

Ventilation: Not required under normal conditions.

Protective Gloves: Not required under normal conditions.

Eye Protection: Not required under normal conditions.

Other Protective Clothing or Equipment: Not required under normal conditions.

Work/Hygienic Practices: Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Dry Laundry Sour #8784

Revised: September 18, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Sodium Silicofluoride	16893-85-9	2.5 mg/m ³ as fluoride	
Sodium Sulfate	7757-82-6	None	
Sodium Acid (Bi)Fluoride	1333-83-1	2.5 mg/m ³ as fluoride	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.202
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	White powder with slight odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, foam, carbon dioxide, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Containers may rupture explosively if contaminated or exposed to heat.

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Reacts with aluminum, acids

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit fumes of F⁻, SO_x and Na₂O.

Section VI - Health Hazard Data:

Routes of Entry: Inhalation, ingestion

Health Hazards: *Acute:* Irritation of skin and eyes

Chronic: None Known

Target Organs: Skin and eyes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Ingestion of small quantity may be fatal. Inhalation of dust may cause irritation to respiratory tract. Skin contact may result in irritation and ulceration, eye contact may cause burns.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:* Get medical attention immediately
- Skin:* If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unuseable product.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Air purifying or supplied air as recommended

Ventilation: Mechanical as need to remain below action levels

Protective Gloves: Chemically resistant

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment: Wear clothing to avoid skin contact, remove clothing

when contaminated

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Granular Fabric Softener #8785

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Fabric Softener

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Sodium Sulphate	7757-82-6	None	
1-Octadecanaminium, N,N-	107-64-2	None	
Dimethyl-N-Octadecyl-,Chloride			

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.07
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A		
<u>Solubility in Water:</u>	100%		
<u>Appearance and Color:</u>	White powder with slight odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, carbon dioxide, alcohol form, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility (Conditions to avoid): Violent reaction with aluminum. Strong oxidizers
Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit toxic fumes of SO_x and Na₂O.

Section VI - Health Hazard Data:

Routes of Entry: Contact, Ingestion

Health Hazards: *Acute:* Eye irritation

Chronic: None Known

Target Organs: Eyes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: May cause severe eye irritation

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, promptly wash the contaminated skin with soap and water. If this product penetrates the clothing, promptly remove the clothing and wash the skin with soap and water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unusable material properly. Residue may be washed to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Dust respirator recommended for operations that generate dust

Ventilation: Sufficient ventilation to maintain exposure below permissible exposure limits for dust.

Protective Gloves: Chemically resistant

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Dry Oxygen Laundry Bleach #8786

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Sodium Carbonate	497-19-8	None	
Sodium Bicarbonate	144-55-8	None	
Sodium Perborate, tetrahydrate	10486-00-7	None	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	0.81
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A		
<u>Solubility in Water:</u>	100%		
<u>Appearance and Color:</u>	White powder with slight odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, carbon dioxide, alcohol foam, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Can react with aluminum, phosphoric acid, sulfuric acid, fluoride, lithium, 2,4,6-trinitro-toluene

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decompositions may emit toxic fumes of Na_2O , PO_x .

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:*

Chronic: Human systemic effects: respiratory changes, increased urine production, sodium level changes

Target Organs: Skin and eye

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Skin and eye irritant

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, promptly wash the contaminated skin with soap and water. If this product penetrates the clothing, promptly remove the clothing and wash the skin with soap and water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unusable product properly. Residue may be flushed to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions

Ventilation: None required under normal conditions

Protective Gloves: Chemically resistant

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Laundry Built Detergent with Caustic #8787

Revised: August 28, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Sodium Metasilicate	6834-92-0	None	
Sodium Carbonate	497-19-8	None	
Sodium Hydroxide	1310-73-2	2mg/m ³	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	0.928
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	White granular/flake		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A **Flammable Limits:** LEL: N/A UEL: N/A
Extinguishing Media: Water, dry chemical, carbon dioxide, alcohol foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Can react with aluminum, phosphoric acid,

sulfuric acid, fluoride, lithium, 2,4,6-trinitrotoluene

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition emits toxic fumes of Na_2O , and PO_x .

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Eye and skin irritation.

Chronic: None Known

Target Organs: Eye, mucous membranes and skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation of the eye, mucous membranes, and skin. Can cause burns and deep ulcerations. May cause small burns and serious damage to delicate tissue. Ingestion can cause serious damage to tissues. Inhalation can cause mild irritation to severe pneumonitis.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, promptly flush the contaminated skin with soap and water. If this product penetrates the clothing promptly remove the clothing and flush the skin with water. If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unusable product.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions

Ventilation: None required under normal conditions

Protective Gloves: Chemically resistant

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices:

Section IX - Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Non-Phosphate Laundry Detergent #8788

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*
Sodium Carbonate		497-19-8	None
Sodium Metasilicate	6834-92-0	None	
Sodium Sulfate	7757-82-6		None

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point:	N/A	Specific Gravity:	0.83
Vapor Pressure:	N/A	Vapor Density:	N/A
Evaporation Rate: (Ethyl Ether =1):	N/A		
Solubility in Water:	100%		
Appearance and Color:	White powder with slight odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, dry chemical, carbon dioxide, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Can react violently with aluminum, phosphoric acid, sulfuric acid, fluoride, lithium, 2,4,6-trinitro-toluene.

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition emits toxic fumes of SO_x, PO_x, and Na₂O.

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Eye, skin and mucous membrane irritation

Chronic: None Known

Target Organs: Eyes, skin

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Eye and mucous membrane irritation. Ingestion causes gastrointestinal upset.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, promptly wash the contaminated skin with soap and water. If this product penetrates the clothing, promptly remove the clothing and wash the skin with soap and water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of unusable product properly. Flush residue quantities to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions.

Ventilation: None required under normal conditions.

Protective Gloves: Chemically resistant.

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Wash hands after use.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Non-Phosphate Chlorine Bleach #8789

Revised: August 28, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>	<u>Percentage</u>
Sodium Sulfate	7757-82-6	None		

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	1.21
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	N/A	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	White powder with slight odor		

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, dry chemical, foam or carbon dioxide
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): Can react with aluminum, phosphoric acid, sulfuric acid, fluoride, lithium, 2,4,6-Trinitro-toluene

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit fumes of Na₂O, PO_x and SO_x, CO₂.

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Respiratory changes, increased urine volume, sodium level changes

Chronic:

Target Organs: Eyes and skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Eye and skin irritant. Ingestion of large amounts may cause catharsis, hemorrhages from the intestine.

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, promptly wash the eyes with large amounts of water. occasionally lifting the lower and upper lids. Get medical attention if any discomfort continues.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, flush the contaminated skin with water promptly. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water promptly, If irritation persists after washing, get medical attention.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, properly dispose of unusable product. Residue may be flushed to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep dry

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions

Ventilation: None required under normal conditions

Protective Gloves: Chemically resistant

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Laundry Detergent with Oxygen Bleach #8790

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Sodium Sulphate	7757-82-6	Not determined	
Sodium Carbonate	497-19-8	Not determined	
Sodium Tripolyphosphate	7758-29-4	Not determined	
Sodium Metasilicate	6834-92-0	Not determined	
Sodium Carboxymethyl			
Cellulose	9004-32-4	Not determined	
Sodium Percarbonate	4452-58-8	Not determined	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: N/A Specific Gravity:
Vapor Pressure: N/A Vapor Density: N/A
Evaporation Rate: (Ethyl Ether =1): N/A
Solubility in Water:
Appearance and Color: White granular powder

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, Carbon dioxide, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid):

Hazardous Polymerization:

Hazardous Decomposition Products:

Section VI - Health Hazard Data:

Routes of Entry: Contact

Health Hazards: *Acute:* Irritation

Chronic:

Target Organs: Skin, Eyes

Carcinogenicity: *NTP:* No

IARC: No

OSHA: No

Signs and Symptoms of Exposure: Irritation to mucous membranes

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Collect spilled material, dispose of non-useable material, properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection:

Ventilation: Local ventilation

Protective Gloves: Protective

Eye Protection: Goggles

Other Protective Clothing or Equipment:

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name:

Hazard Class:

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

ConstituentCAS #Concentration

None

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Power Capsule, #8791

Date Prepared: August 1999

Revised: Sept. 7, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*	Percentage
Sodium Hydroxide	1310-73-2	2mg/m ³	2mg/m ³	<22%
Sodium Metasilicate	6834-92-0		<9%	

No exposure limits have been established for this specific product however, the following limits may apply
10mg/m³

Sodium Dichloro-S-Triazinetrione 2893-78-9 <3%

Although OSHA and ACGIH have not established specific exposure limits for this material, they have established for the following nuisance dusts.

OSHA PEL/TWA: TOTAL 15mg/m³; RESPIRABLE 5mg/m³

ACGIH TLV/TWA TOTAL 10mg/m³; RESPIRABLE 5mg/m³

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: N/A Specific Gravity: NO DATA
Vapor Pressure: N/A Vapor Density: N/A
Evaporation Rate: (Ethyl Ether =1): N/A
Solubility in Water: Complete
Appearance and Color: White powder, chlorine odor

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: This material is not combustible, foam, carbon dioxide or dry chemical may be used in areas where this product is stored.

Special Fire Fighting Procedures: Firefighters should wear full protective clothing when any material is involved in a fire.

Unusual Fire and Explosion Hazards: Contact with some metals: particularly magnesium, aluminum, and zinc (galvanized) can rapidly generate hydrogen which is explosive.

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section V - Reactivity Data:

Stability: Stable

Conditions to avoid: Leather, wool, acids, organic halogen compounds, organic nitro compounds, magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze.

Incompatibility: (Materials to avoid) See above.

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: None Known

Section VI - Health Hazard Data:

Routes of Entry: skin and eye contact, inhalation, ingestion

Health Hazards (acute and chronic): Acute - corrosive to all body tissues by all routes of exposure.

The effect of local dermal exposure may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis, similarly, inhalation of dust, spray or mist may result in varying degrees of irritation or damage to the respiratory tract tissues and an increased susceptibility to respiratory illness. Chronic - none known.

Carcinogenicity: NTP: No

LARC: No

OSHA: No

Emergency and First Aid Procedures:

Eyes: Object is to flush material out immediately then get medical attention. Immediately flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention.

Skin: Immediately wash contaminated areas with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear which cannot be decontaminated. Get medical attention immediately.

Ingestion: Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water, if available, give several glasses of milk. If vomiting occurs spontaneously, deep airway clear. Get medical attention.

Inhalation: Remove to fresh air. If breathing is difficult, have a trained person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. Get medical attention immediately.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Only a trained person equipped with protective gloves, shoes and clothing should be permitted in area. Keep the material dry and shovel or sweep up material. After all visible material has been removed, flush area with large amounts of water.

Waste Disposal Method: Dispose of material in accordance with all local, state and federal regulations.

Precautions to be Taken in Handling and Storing: Do not get in eyes, on skin or clothing. Avoid breathing dust, mists or spray. Do not take internally. Use with adequate ventilation and wear respiratory protection when exposure to dust, mist or spray is possible. When handling, wear chemical splash goggles, face shield, rubber gloves and protective clothing. Wash thoroughly after handling or contact. Exposure can cause burns which are not immediately painful or visible. Keep container closed. Product is corrosive to tin, aluminum, zinc and alloys containing these metals and will react violently with these metals in powder form.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal use.

Ventilation: Sufficient to maintain dust levels below permissible exposure limits.

Protective Gloves: Rubber or PVC

Eye Protection: OSHA approved goggles with full face shield.

Other Protective Clothing or Equipment: Rubber apron, PVC clothing, and eye bath recommended.

Section IX-Additional Information:

DOT Shipping Name: Sodium Hydroxide Mixture, 8, UN1823, PGII

Hazard Class: Corrosive powder

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Diamond Gloss Floor Finish - 8792

Date Revised: September 19, 2000

Section I - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Floor Finish

Section II - Hazardous Ingredients/Identify Information

Hazardous Components	CAS No.	OSHA PEL*	ACGIH TLV*	Percentage
Diethylene Glycol Methyl Ether	00111-77-3	Not estab.	Not estab.	5.98
Dibutyl Phthalate	000084-74-2	5mg/CU M	5MG/CU M	0.6 - 3.0

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). *Other Limits* are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

Boiling Point: 212° F. Specific Gravity: 1.0
Vapor Pressure: 0.120 MMHG @ 68° F. Odor: Mild
Evaporation Rate: (Ethyl Ether =1): pH: 10.0
Solubility in Water: Complete
Appearance and Color: Off-white, liquid

Section IV - Fire and Explosion Hazard Data:

Flash Point: 201° F. Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: None required
Special Fire Fighting Procedures: None known
Unusual Fire and Explosion Hazards: None known

Section V - Reactivity Data:

Stability: Stable Conditions to avoid: High temperatures
Incompatibility: None foreseeable
Hazardous Polymerization: None under normal conditions
Hazardous Decomposition Products: Incomplete combustion can produce carbon monoxide

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section VI - Health Hazard Data:

Routes of Entry: contact, ingestion, inhalation

Target Organs: Eyes, nose, throat, skin

Eye contact: May cause irritation.

Skin contact: Prolonged exposure may cause slight irritation.

Inhalation: Prolonged overexposure to vapors in confined space may cause throat and nose irritation.

Ingestion: May cause mouth, throat, esophagus and stomach irritation, nausea, vomiting and diarrhea.

Health Hazards: *Acute:*

Chronic:

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eyes: Flush with plenty of water for 15 minutes, seek medical attention.

Skin: Wash thoroughly with soap and water. Remove contaminated clothing and shoes and clean.

Inhalation: If affected by vapors or mist, move to fresh air. Seek medical attention.

Ingestion: Seek medical attention.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Ventilate area. Contain and remove with inert absorbent and non-sparking tools.

Waste Disposal Method: dispose of in accordance with local, state and federal regulations. Do not incinerate closed containers. Incinerate in approved facility.

Precautions to be Taken in Handling and Storing: Do not store at above 100° F. Keep containers closed when not in use. Store upright to prevent leakage.

Section VIII - Control Measures:

Respiratory Protection: None normally required.

Ventilation: Use in ventilated area.

Protective Gloves: For prolonged or repeated exposure, wear plastic gloves.

Eye Protection: Wear safety eye wear with splash guards and side shields.

Other Protective Clothing or Equipment: Normally none required.

Work/Hygienic Practices: Wash hands after use. Do not take internally.

Section IX-Additional Information:

DOT Shipping Name: Plastic materials, liquid**Hazard Class: Resin compounds, liquid, NMFC: 149980/SUB 2, LTL Class 55**

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Diethylene Glycol Methyl Ether	00111-77-3	5.98%

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Pot-n-Pan Power, 8793

Date Revised: September 19, 2000

Section I - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Plymouth, Michigan 48170
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>	<u>Percentage</u>
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Chemical ingredients are not hazardous by Osha criteria

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u> N/A	<u>Specific Gravity:</u> N/A
<u>Vapor Pressure:</u> N/A	<u>Vapor Density:</u> N/A
<u>Evaporation Rate:</u> (Ethyl Ether =1): N/A	
<u>Solubility in Water:</u> Complete	
<u>Appearance and Color:</u> White powder, odorless	

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: This material is not combustible, foam, carbon dioxide or dry chemical may be used in areas where this product is stored.
Special Fire Fighting Procedures: Firefighters should wear full protective clothing when any material is involved in a fire.
Unusual Fire and Explosion Hazards: N/A

Section V - Reactivity Data:

Stability: Stable
Conditions to avoid: Contact with acids
Incompatibility: (Materials to avoid) Strong acids
Hazardous Polymerization: Will not occur
Hazardous Decomposition Products: None

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section VI - Health Hazard Data:

Routes of Entry: Skin and eye contact, inhalation, ingestion

Health Hazards: *Acute:* May cause severe irritation of the eyes. Dusts are irritating to the skin, mucous membranes, and upper respiratory tract.

Chronic: None known

Carcinogenicity: *NTP:* No

IARC: No

OSHA: No

Signs and Symptoms of Exposure: Skin and eye irritant

Emergency and First Aid Procedures:

Eye: Immediately flush eyes with water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention.

Swallow: Never give anything by mouth to an unconscious person. Do not induce vomiting. Give large quantities of water, if available, give several glasses of milk. If vomiting occurs spontaneously, keep airway clear. Get medical attention

Skin: Wash with plenty of water, if irritation occurs, consult a physician.

Breathing: Remove to fresh air. If discomfort occurs, get medical attention immediately

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Sweep up as much as possible for salvage or disposal. Wash away any residue with water.

Waste Disposal Method: Dispose of material in accordance with all local, state and federal regulations.

Precautions to be Taken in Handling and Storing: Do not store close to acids, wear eye protection and Osha approved dust respirator to prevent irritation where excessive dust is present. Follow normal housekeeping procedures, keep container closed, store in a cool dry place.

Section VIII - Control Measures:

Respiratory Protection: Not required under normal use.

Ventilation: Sufficient to maintain dust levels below permissible exposure limits

Protective Gloves: Rubber or PVC

Eye Protection: OSHA approved goggles with side shields recommended

Section IX-Additional Information:

DOT Shipping Name: No special shipping information required

Hazard Class:

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
N/A	N/A	N/A

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Power Capsule, Non-Phosphate - #8794

Revised: September 19, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>		<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>AC</u>
Trisodium Citrate Dihydrate	1310-73-2	Non-Hazardous		
Sodium Metasilicate	6834-92-0	Not established	Not established	
Sodium Dichloro-S-Triazinetrione	2893-78-9	Not established	Not established	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	N/A	<u>Specific Gravity:</u>	No Data
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Butyl Acetate =1):</u>	N/A		
<u>Solubility in Water:</u>	Complete		
<u>Appearance and Color:</u>	White powder, chlorine odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Material is not combustible, foam
Special Fire Fighting Procedures: Wear protective clothing when any material is involved in a fire.
Unusual Fire and Explosion Hazards: None known.

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): aluminum, fluorine, zinc acids.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: None known.

Section VI - Health Hazard Data:

Routes of Entry: Inhalation, skin and eye contact, ingestion**Health Hazards:**

Acute and Chronic: Acute - corrosive to all body tissues by all routes of exposure. Inhalation may cause upper respiratory tract irritation, dizziness, headache, serious damage to lung tissue and respiratory tract. Chronic - none known.

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Dizziness, irritation

Emergency and First Aid Procedures:

- Eye:*** Immediately flush eyes with large amounts of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention.
- Swallow:*** Never give anything by mouth to an unconscious person. Do not induce vomiting. Give 2-3 glasses of water to drink. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs spontaneously give water to further dilute the chemical.
- Skin:*** Immediately wash contaminated areas with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear which cannot be decontaminated. Get medical attention.
- Inhalation:*** Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. Get medical attention immediately.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Only trained personnel equipped with protective gloves, shoes and clothing should be permitted in the area. Keep the material dry and shovel or sweep up material after all visible material has been removed. Flush area with large amounts of water.

Waste Disposal Method: Dispose of dry residues in an approved hazardous waste

management facility in accordance with local, state and federal regulations.

Precautions to Take in Handling and Storing: Do not get in eyes, on skin, on clothing. Avoid breathing dust, mists, or spray. Do not take internally. Use with adequate ventilation and wear respiratory protection when exposure to dust, mist or spray is possible. When handling, wear chemical splash goggles, face shield, rubber gloves and protective clothing. Wash thoroughly after handling. Store in cool, dry area.

Section VIII - Control Measures:

Respiratory Protection: Not required during normal use of product,

Ventilation: Use adequate ventilation.

Protective Gloves: Rubber or PVC.

Eye Protection: OSHA approved chemical safety goggles with full face shield.

Other Protective Clothing or Equipment: Rubber apron, PVC clothing, eye bath.

Section IX-Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Heavy Duty Liquid Laundry Detergent #8800

Revised: August 28, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.

Address: Scott Correctional Facility

Emergency Phone: (734) 459-7400

Technical Information: (734) 459-7400

Chemical Name: Detergent

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>	<u>Percentage</u>
NONE				

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm)."Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	<u>Specific Gravity:</u>	1.07
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<u>Vapor Pressure:</u>	<u>Vapor Density:</u>	N/A
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<u>Evaporation Rate: (Ethyl Ether =1):</u>	<u>pH:</u>	12.0
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Solubility in Water:

Appearance and Color: Thick green liquid with lemon-lime odor

Section IV- Fire and Explosion Hazard Data:

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Carbon dioxide, foam, water, dry chemical

Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate
Fire -	0	

Reactivity-	0	1 – Slight 0 – None
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Section V - Reactivity Data:

Stability: STABLE

Incompatibility(Conditions to avoid): Strong acids and oxidizers

Hazardous Polymerization: None known

Hazardous Decomposition Products: May release carbon monoxide, carbon dioxide and oxides of sulfur, sodium, potassium.

Section VI - Health Hazard Data:

Routes of Entry: Contact

Health Hazards: *Acute:* Irritation

Chronic: None Known

Target Organs: Eyes, skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Eye and skin irritation

Medical Conditions Generally Aggravated by Exposure: Dermatitis

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If the product contacts the skin, wash the contaminated skin with water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they

become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions. Use NIOSH-approved respirator appropriate for emission levels.

Ventilation: General ventilation is adequate. Use exhaust fan if necessary.

Protective Gloves: Use chemically resistant gloves

Eye Protection: Safety glasses with shields or goggles to avoid eye contact.

Other Protective Clothing or Equipment:

Work/Hygienic Practices: Wash hands after use.

Section IX - Additional Information:

DOT Shipping Name: N/A

Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Liquid Laundry Bleach #8801

Revised: March 12, 2001

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Disinfectant

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Sodium Hypochlorite	7681-52-9	None	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	212° F	<u>Specific Gravity:</u>	1.01
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	>1
<u>Evaporation Rate: (Ethyl Ether =1):</u>	>1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Liquid with yellow cast, chlorine odor	<u>pH:</u>	11.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, carbon dioxide, dry chemical, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Oxygen generator

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Amines, ammonium salts, ammonium nitrates, ammonium oxalates, methanol, aziridine, cellulose, thylene amine, phenyl acetonitrile

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to level of decomposition emits toxic fumes of Na_2O and Cl^- .

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards *Acute:* Corrosive and irritant by ingestion and inhalation

Chronic: None Known

Target Organs: Mucous membranes, eyes, skin

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure:

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unuseable material properly. Residue quantities may be flushed to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It may exhibit the hazardous characteristic of corrosivity listed in 40CFR 261, Subpart C, pH analysis is required. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Not required under normal conditions

Protective Gloves: Acid resistance

Eye Protection: Goggles to prevent splash into eyes

Other Protective Clothing or Equipment: Water repellant apron

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: Hypochlorite Solutions (>5%, but <16%), 8, UN 1791, PG III
Hazard Class: Corrosive Material

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Laundry Alkali Builder #8802

Revised: September 19, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Alkali

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Potassium Hydroxide	1310-58-3	None	
Sodium Hydroxide	1310-73-2	2 mg/m ³	
Potassium Silicate	1312-76-1	None in solution	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	>212 °F	<u>Specific Gravity:</u>	1.20
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	>1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear liquid with slight odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Dry chemical, water, carbon dioxide, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Above 84 °C reacts with reducing sugars to form carbon monoxide gas.

NFPA 704

Health -	2	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE

Incompatibility (Conditions to avoid): Acids, metals, halogenated hydrocarbons, maleic anhydride

Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition emits toxic fumes of K_2O and Na_2O .

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Eye and skin irritation

Chronic: None Known

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritation of eyes, skin, mucous membranes, pneumonitis, coughing, sneezing, eye and skin burns, vomiting, diarrhea, temporary loss of hair

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately. Do not induce vomiting.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly. Residue quantities may be flushed to the sanitary sewer with large amounts of water.

Waste Disposal Method: This product exhibits the hazardous characteristic of corrosivity listed in 40CFR 261, Subpart C. It is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Supplied or self contained breathing apparatus if ventilation cannot reduce concentration to below regulatory levels.

Ventilation: Mechanical ventilation to keep atmosphere below TWA and IDLH values

Protective Gloves: Chemically resistant

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for a quick drenching the body should be provided within the immediate work area for emergency use where there is possibility of exposure.

Section IX - Additional Information:

DOT Shipping Name: Compounds, Cleaning Liquid, 8, NA1760, PG III

Hazard Class: Corrosive Liquid

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Liquid Laundry Sour #8803

Revised: September 21, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Acid

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
Oxalic Acid	144-62-7	1 mg/m ³	1 mg/m ³
Phosphoric Acid	7664-38-2	1 mg/m ³	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	>212 °F	<u>Specific Gravity:</u>	1.01
<u>Vapor Pressure:</u>	0.03 mm	<u>Vapor Density:</u>	
<u>Evaporation Rate: (Ethyl Ether =1):</u>		<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear liquid with slight odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: None Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, dry chemical
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): Strong oxidizers, caustics and most metals especially silver compounds. Reactions with furfuryl alcohol, Chlorites. DO NOT MIX WITH BLEACH OR AMMONIA.
Hazardous Polymerization: None known
Hazardous Decomposition Products: When heated to decomposition emits acrid smoke and irritating fumes.

NFPA 704

Health -	3	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	1	

Section VI - Health Hazard Data:

Routes of Entry: Contact, inhalation, ingestion

Health Hazards: *Acute:* Corrosion of the mouth, esophagus and stomach

Chronic: Removal of calcium in the blood, kidney stones, albuminuria, weight loss, increasing weakness and nervous system complaints, ulceration of the mucous membranes, epistaxis, headache, irritation and nervousness

Target Organs: Eye, skin, respiratory system, kidneys

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Severe eye and upper respiratory irritation.

Vomiting, burning and abdominal pain, collapse, and sometimes convulsions.

Dermatitis, pulmonary edema, bluish skin, shock, kidney damage

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

- Eye:*** If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:*** If this product has been swallowed, get medical attention immediately.
- Skin:*** If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.
- Breathing:*** If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Don protective clothing. Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product does exhibit the hazardous characteristics of corrosive listed in 40CFR 261, Subpart C. It is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: 25 mg/m³: Continuous flow supplied air or powered air purifying respiratory; 50 mg/m³: Air purifying respiratory with high efficiency particulate filter or supplied air

Ventilation: Mechanical ventilation to keep atmosphere below regulatory levels

Protective Gloves: Acid resistant gloves

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Remove protective clothing when wet or contaminated. Change protective clothing daily. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for a quick drenching the body should be provided within the immediate work area for emergency use where there is possibility of exposure.

Section IX-Additional Information:

DOT Shipping Name: Phosphoric Acid Solution, 8, UN1805, PG III

Hazard Class: Corrosive

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Phosphoric Acid	7664-38-2	48%

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Liquid Fabric Softener #8804

Revised: August 28, 2000

Section I: - Source Information

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Fabric Softener

Section II - Hazardous Ingredients/Identify Information

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Isopropanol	67-63-0	400 ppm	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics

<u>Boiling Point:</u>	180° F	<u>Specific Gravity:</u>	0.99
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	>1	<u>Solubility in Water:</u>	Dispersable
<u>Appearance and Color:</u>	Pale green opaque liquid with mild fragrance	<u>pH:</u>	6.0

Section IV - Fire and Explosion Hazard Data:

Flash Point: None Flammable Limits: LEL: 2% UEL: 12%
Extinguishing Media: Dry chemical, water fog, alcohol foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: None Known

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	1	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): Strong oxidizers
Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit fumes of SO_x and NO_x.

Section VI - Health Hazard Data:

Routes of Entry: Contact, inhalation

Health Hazards: *Acute:* Irritation of skin and eyes

Chronic: Drying, cracking and defatting, dermatitis and irritation.

Target Organs: Skin, Eyes

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Skin irritation, diarrhea, nausea, vomiting, cramps, gastrointestinal irritation.

Medical Conditions Generally Aggravated by Exposure: Skin disorders may be especially susceptible, liver and kidney conditions.

Emergency and First Aid Procedures:

- Eye:* If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.
- Swallow:* If this product has been swallowed, get medical attention immediately.
- Skin:* If this product contacts the skin, immediately wash the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and wash the skin with water. If symptoms occur after washing, get medical attention immediately.
- Breathing:* If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unuseable material properly.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.??

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: Not required under normal conditions

Ventilation: Mechanical to remain below action levels

Protective Gloves: Wear if prolong exposure anticipated

Eye Protection: Goggles to avoid eye contact

Other Protective Clothing or Equipment:

Work/Hygienic Practices:

Section IX-Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Liquid Anti-Chlor #8805

Revised: September 19, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Sodium Metabisulfate

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Sodium Metabisulfate	7681-57-4	N/A	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	>212 ° F	<u>Specific Gravity:</u>	1.02
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	>1
<u>Evaporation Rate: (Ethyl Ether =1):</u>	<1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear, colorless liquid with strong odor		

Section IV- Fire and Explosion Hazard Data:

Flash Point: None **Flammable Limits:** LEL: N/A UEL: N/A
Extinguishing Media: Water, carbon dioxide, dry chemical, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): High temperatures
Hazardous Polymerization: None known

Hazardous Decomposition Products: When heated to decomposition may emit toxic fumes of SO_x and Na₂O. Slowly oxidizes to sulfate on exposure to air and moisture.

Section VI - Health Hazard Data:

Routes of Entry: Contact, ingestion

Health Hazards: *Acute:* Irritation; eyes, skin, and lungs

Chronic: None Known

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: Irritant to eyes, skin, mucous membranes

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: Flush with water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly. Residual quantities may be flushed to sanitary sewer with large amounts of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing:

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions

Ventilation: None required under normal conditions

Protective Gloves: Chemically resistant

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment: Clothing to prevent skin contact

Work/Hygienic Practices:

Section IX - Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
None		

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MATERIAL SAFETY DATA SHEET

HM

Trade Name: Liquid Oxygen Bleach #8807

Revised: August 28, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Hydrogen peroxide

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>
Hydrogen peroxide	7722-84-1	1 ppm (1.4 mg/m ³)	

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	>212 ° F	<u>Specific Gravity:</u>	1.05
<u>Vapor Pressure:</u>	>5 mm	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	<1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Colorless, clear liquid	<u>pH:</u>	5.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon dioxide, dry chemical, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Oxidizer

NFPA 704

Health -	1	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility(Conditions to avoid): Oxidizable materials, iron, copper, brass, bronze, chromium, zinc, lead, silver, manganese

Hazardous Polymerization: None known

Hazardous Decomposition Products:

Section VI - Health Hazard Data:

Routes of Entry: Contact

Health Hazards:

Acute: Irritation to eyes, nose and throat; cornea ulceration; hair bleaching; vesiculation of the skin; skin redness

Chronic: None Known

Target Organs: Eyes, skin, respiratory system

Carcinogenicity: NTP: No IARC: No OSHA: No

Signs and Symptoms of Exposure: Irritation of eyes, nose, throat, cornea ulcer, reddening and vesiculation of skin, bleaching of hair

Medical Conditions Generally Aggravated by Exposure:

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: If this product has been swallowed, get medical attention immediately.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water. If this product penetrates the clothing, immediately remove the clothing and flush the skin with water. Get medical attention promptly.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material with non-organic absorbent, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly.

Waste Disposal Method: This product does exhibit the hazardous characteristics of ignitability listed in 40CFR 261, Subpart C. It does not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Keep container closed to avoid evaporation.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: If above regulatory levels used supplied air

Ventilation: Mechanical ventilation to maintain below regulatory levels

Protective Gloves: Chemically resistant

Eye Protection: Wear appropriate glasses, goggles or face shield to prevent eye contact.

Other Protective Clothing or Equipment: Wear appropriate personal protective clothing to prevent skin contact.

Work/Hygienic Practices: Avoid skin and eye contact. If contact with skin or eyes occurs, flush

with water and seek medical attention.

Section IX-Additional Information:

DOT Shipping Name: Hydrogen Peroxide, Aqueous Solution (8 - 20%), 5.1, UN2984, PGIII
Hazard Class: Oxidizer

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
Hydrogen peroxide	7722-84-1	16.9%

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MATERIAL SAFETY DATA SHEET

NH

Trade Name: Laundry Fresh #8808

Revised: August 28, 2000

Section I: - Source Information:

Manufacturer's Name: Michigan State Industries, Inc.
Address: Scott Correctional Facility
Emergency Phone: (734) 459-7400
Technical Information: (734) 459-7400
Chemical Name: Fragrance

Section II - Hazardous Ingredients/Identify Information:

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>OSHA PEL *</u>	<u>ACGIH TLV*</u>	<u>Percentage</u>
NONE				

*Exposure limits expressed as eight-hour time-weighted average concentrations in parts of contaminant per million parts of air by volume(ppm). "Other Limits" are recommended by the National Institute for Occupational Safety and Health (NIOSH) and are time-weighted over ten hours unless otherwise specified.

Section III - Physical/Chemical Characteristics:

<u>Boiling Point:</u>	212 °F	<u>Specific Gravity:</u>	1.0
<u>Vapor Pressure:</u>	N/A	<u>Vapor Density:</u>	N/A
<u>Evaporation Rate: (Ethyl Ether =1):</u>	>1	<u>Solubility in Water:</u>	100%
<u>Appearance and Color:</u>	Clear Liquid	<u>pH:</u>	5.0

Section IV- Fire and Explosion Hazard Data:

Flash Point: N/A Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water, dry chemical, carbon dioxide, foam
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: None known

NFPA 704

Health -	0	HAZARDS 4 - Extreme 3 - Severe 2 - Moderate 1 - Slight 0 - None
Fire -	0	
Reactivity-	0	

Section V - Reactivity Data:

Stability: STABLE
Incompatibility (Conditions to avoid): Avoid strong oxidizers
Hazardous Polymerization: None known

Hazardous Decomposition Products: None known

Section VI - Health Hazard Data:

Routes of Entry: Inhalation, contact

Health Hazards: *Acute:* None known

Chronic: None known

Target Organs: None known

Carcinogenicity: *NTP:* No *IARC:* No *OSHA:* No

Signs and Symptoms of Exposure: None known

Medical Conditions Generally Aggravated by Exposure: None known

Emergency and First Aid Procedures:

Eye: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Swallow: Get medical attention immediately.

Skin: If this product contacts the skin, immediately flush the contaminated skin with water.

Breathing: If a person breathes large amounts of this product, move the exposed person to fresh air at once. Other measures are usually unnecessary.

Section VII - Precautions for Safe Handling and Use:

Steps to be Taken in Case of Material Release or Spill: Contain and absorb spilled material, dispose of properly. Large spill may be collected using vacuum equipment, dispose of unusable material properly. Residue quantities may be flushed to the sanitary sewer with large quantities of water.

Waste Disposal Method: This product is not listed in the federal hazardous waste regulations 40CFR 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. It does not exhibit any of the hazardous characteristics listed in 40CFR 261, Subpart C. State or local hazardous waste regulations may apply if different from federal.

Precautions to be Taken in Handling and Storing: Store in cool, dry, ventilated area. Keep containers closed and in the upright position when not in use.

Other Precautions:

Section VIII - Control Measures:

Respiratory Protection: None required under normal conditions

Ventilation: General ventilation is adequate. Use exhaust fan if necessary.

Protective Gloves: Use of chemically resistant gloves is recommended.

Eye Protection: Goggles to prevent eye contact

Other Protective Clothing or Equipment: Clothing to prevent skin contact

Work/Hygienic Practices:

Section IX - Additional Information:

DOT Shipping Name: N/A
Hazard Class: N/A

This product contains the following compounds which are subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR 372:

<u>Constituent</u>	<u>CAS #</u>	<u>Concentration</u>
NONE		

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